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The Bristol Medico-Chirurgical Journal

" Scire est nescire, nisi id me Scire alius sciret."

AUTUMN, 1945.

GASTROSCOPY: A SURVEY

BY

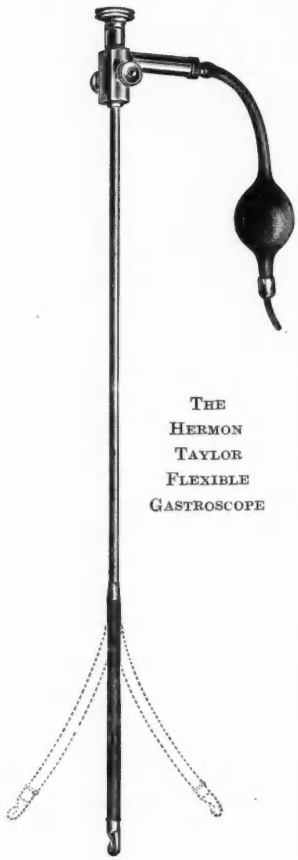
NORMAN C. TANNER, M.B., CH.B., F.R.C.S.

Senior Surgeon, St. James's Hospital, London.
Surgeon Specialist to the London County Council.

GASTROSCOPY is the latest endoscopic method to become established by achieving safety combined with useful vision, and yet it was one of the earliest attempted. In 1868, only five years after Désormeux had invented a method of illuminating an endoscope, Kussmaul[1] published in Freiburg his attempt to examine the stomach of a professional sword swallower. His method was to pass a long straight metal tube (47cm. long and 13mm. diameter) over a previously introduced flexible obturator but the primitive method of illumination was insufficient. The first useful views of the interior of the stomach were obtained in 1881 by Mikulicz[2] using an angled rigid gastroscope with illumination at its distal end by means of a small electric bulb—then a recent innovation. This method was abandoned because of its technical difficulties and fatalities following its use. Later, attempts to make a flexible jointed gastroscope which could be made rigid and straight after introduction were made, and abandoned.

Perhaps the first routinely used gastroscope was the rigid closed tube with a long rubber tip (which facilitated passage through the lower oesophagus) introduced by Elsner[3] in 1911. Again the disadvantage was that fatalities occurred in all but one or two very

skilled hands, and good views could not be obtained in a large number of people : for the axis of the stomach goes forwards from the cardia and is not in the same line as the axis of the oesophagus, making rigid straight gastroscopes unsatisfactory.



THE HERMON TAYLOR FLEXIBLE GASTROSCOPE

FIG. A.

In 1932 by the co-operation of the physician Rudolf Schindler, a German now working in Chicago, and the Berlin optical instrument maker Georg Wolf, real safety was at last obtained by the invention of a flexible gastroscope which did not need to be straightened after introduction[4]. This followed the discovery that it was possible to see through a curved tube filled with many lenses each of short focal length. This instrument is rigid in its proximal half and flexible in its distal half. It has been and is widely and most usefully employed. However, it was a disadvantage that one had no control over the distal flexible half, and if it lay in close contact with the mucosa of the stomach, views of the part against which it lay could not be obtained. This difficulty was to some extent overcome when Harold Rodgers[5] introduced a rubber balloon which was fitted just above the object lens and could be inflated at will—this pushed the tip off the mucosa. In 1941 the first gastroscope with controlled flexibility was devised by Mr. Hermon Taylor with the technical assistance of Mr. R. Schranz (Fig. A). The flexible part of this instrument is shorter than is the case with the 'Wolf-Schindler,' the rigid part is longer, and the flexible part can be moved to about 40° from the straight line by a controlling wheel at the proximal end. It is gratifying that this advance has emanated from Britain but it does not represent the first experiments with gastroscopy in these islands. In 1843 Avery in England constructed an instrument through which he could get views of the upper oesophagus and about 1850 Campbell of Glasgow is said to have made a similar tube to Kussmaul's—but his sword-swallower was appalled by it and declined to perform![7]. In 1909 Souttar and Thompson[8] constructed

and used a gastroscope similar to the Mikulicz instrument, but like most such instruments it was passed under general anaesthesia and was not safe. In fact Sherren about that time declared that an exploratory laparotomy was less dangerous than gastroscopy. William Hill of London in 1911 introduced a direct vision tubular gastroscope[9]: this type not unnaturally was generally favoured by laryngologists accustomed to the oesophagoscope and it is of interest that Dr. Patrick Watson-Williams[10] of Bristol in 1911 commented on the ease with which he could see the stomach using Hill's instrument. Such views did not compare however with those we now obtain. We now know that no rigid instrument can combine the safety and adaptability of the flexible one.

The flexible gastroscope can be passed on most people of adult stature so long as there is no disease affecting the oesophagus, or spinal deformity; the youngest I have used it on was 14, the oldest 84. The diminished mobility of the spine in the elderly is usually more than compensated for from the technical view point by their dental deficiencies. The absence of one or two teeth provides an excellent hiatus in which the rigid part of the instrument can rest, with the mouth only partially open.

The examination is done after twelve hours starvation, with the patient lying on the left side. Sensation in the mouth and pharynx is abolished by painting it with a two per cent. solution of amethocaine* hydrochloride, after which the instrument can usually be passed with only slight discomfort.

THE ENDOSCOPIC APPEARANCE OF THE NORMAL STOMACH.

The gastroscope is passed down to the lowest part of the stomach, and finally abuts against the greater curvature. Enough air is introduced to separate the walls of the stomach and the gastroscope is rotated until the pyloric antrum is seen. At the entrance to the antrum is seen, on the lesser curvature side, an archway produced by the tangential view of the lower part of the lesser curvature—the 'angulus' roughly corresponding to the anatomical 'incisura angularis.' After a few moments peristaltic waves, which usually commence in the region of the angulus, progress towards the pylorus. As each wave reaches the pylorus this closes firmly and then its mucosa wrinkles and prolapses back into the stomach, sometimes accompanied by a squirt of duodenal juice. (Figure 1.) It is important to emphasize that if this wrinkling be not clearly seen one cannot be certain that the pylorus is normal. If the wave of contraction ends at a rigid non-prolapsing pylorus it may be the site of a carcinoma.

After a careful inspection of the pyloric antrum is completed, more air is introduced to distend the body of the stomach, and the gastroscope is slowly extracted, turning it in all directions, until the cardia is reached. Because the instrument passes down in close

contact with the posterior part of the lesser curvature, it is necessary to use the controlling wheel to separate the tip from this part of the mucosa in order to view it clearly : for if it lies against the mucosa only a red glow is seen.

Along the lesser curvature four to six low longitudinal folds run from cardia to pylorus. Towards the greater curvature the rugae are thicker, more numerous and intersect more freely. Any fluid in the stomach collects in its most dependent part : with the patient lying on his left side this is the upper part of the greater curvature and is called the " mucus lake." (Figure 2.) It is green or yellowish in colour, may be clear or opaque and may have opaque mucus or saliva or sputum floating in it.

Not every part of the stomach is always seen even though the instrument be fully introduced. Indeed a realization of what one has not seen is one of the most important parts of the gastroscopist's education and one of the reasons why one always insists that gastroscopy is complementary to radiological examination and not a complete substitute for it. As the line of vision is at right angles to the line of the instrument one cannot see directly ahead and so a small area of the greater curvature will not be viewed. Sometimes the lesser curvature side of the pyloric antrum between angulus and pylorus may remain invisible especially in a very J-shaped stomach. The upper part of the fundus of the stomach is rarely seen, as it is at a higher level than the cardia. Therefore a penetrating ulcer in one of these places might be missed. A carcinoma in one of these situations or " blind areas " is usually seen because it tends to project into the stomach.

The gastric mucosa is seen to glisten with a thin film of clear mucus on its surface, and one may also see frothy material, which appears white from a distance. The colour of the mucous membrane varies from a dark congested red to pale, depending to some extent on the presence or absence of anaemia. Close inspection shews that the mucosa of different individuals exhibits variations. In the majority it is seen to be divided into multiple tiny polyhedral areas, the areae gastricae, giving in well marked cases an appearance like a pebble beach (Figure 3), but in others it is smooth and flat with no such visible divisions. Mucosa of the latter type is thinner and in extreme cases it may be so atrophic that blood vessels can be seen through it—an abnormal finding. (Figure 4.) Great distension of the stomach with air will increase the appearance of thinning. It is usually found that the mucosa with well marked *areae gastricae* has a high acid secretion, and the thin one a low secretion or achlorhydria.

GASTRITIS.

Now we enter controversial fields. Is a very dusky red stomach inflamed ? Is opaque mucus pathological or physiological exudate ?

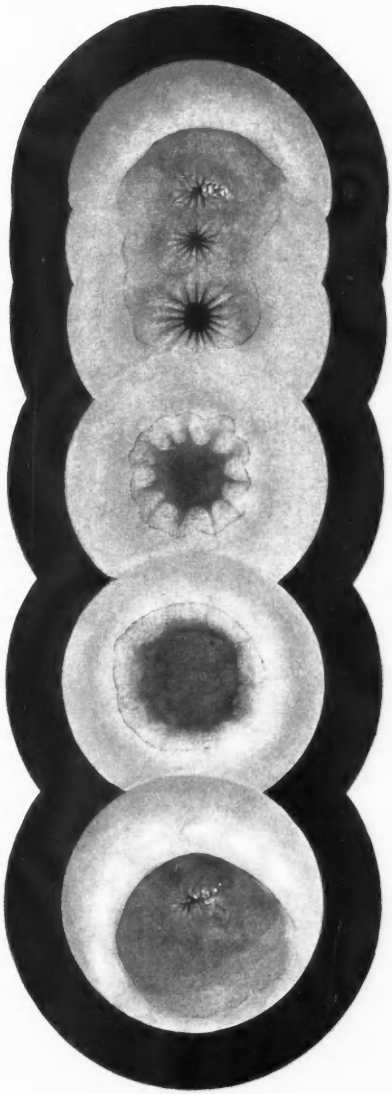


FIG. 1.
Normal Stomach.

FIG. 2.
The "Mucus lake."

FIG. 3.
Areae Gastricae.

FIG. 4.
Atrophic Mucosa.

FIG. 5.
Healing Ulcer.

FIG. 6.
Healed Ulcer.

FIG. 7.
Recurrent Ulcer.

FIG. 8.
Ulcer plus thrombosis.

FIG. 9.
Healing ulcer.

FIG. 10.
Healing ulcer.

FIG. 11.
Cancer.

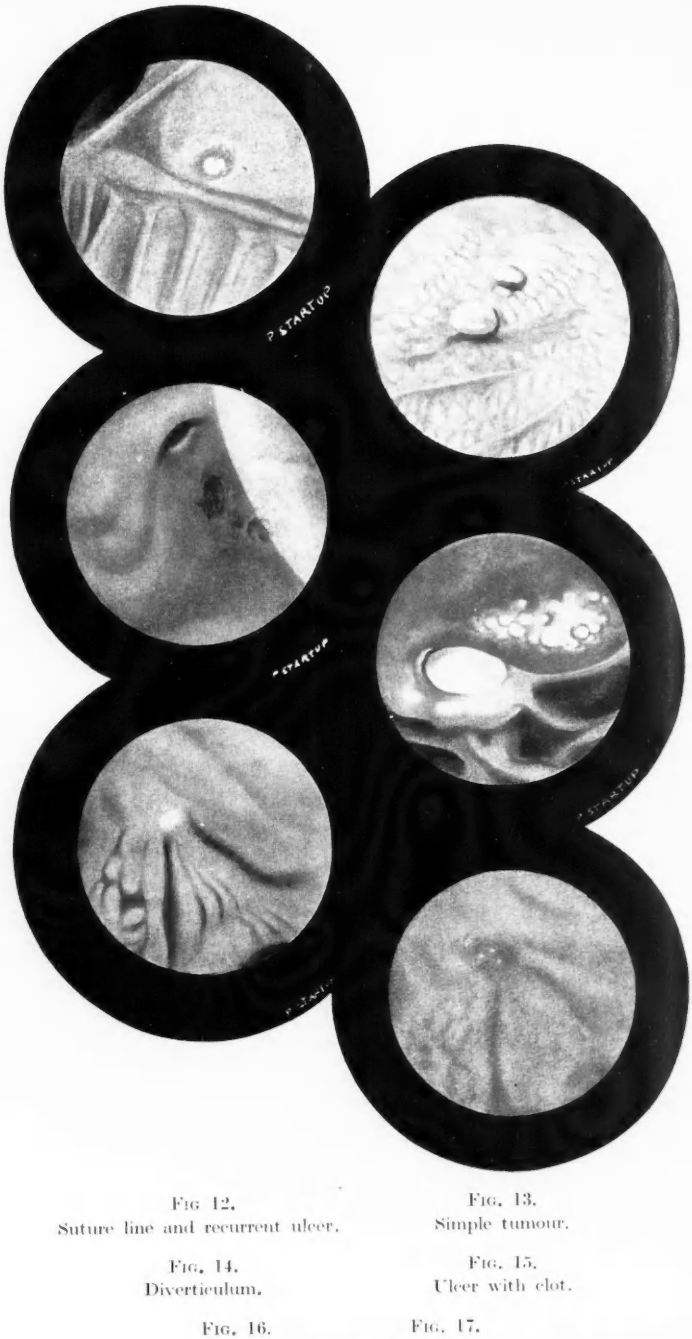


Fig. 12.
Suture line and recurrent ulcer.

Fig. 13.
Simple tumour.

Fig. 14.
Diverticulum.

Fig. 15.
Ulcer with clot.

Fig. 16.
Slowly healing ulcer.

Fig. 17.

Are very large *areae gastricae* evidence of hypertrophic gastritis, or a normal type ? Is a thin mucosa merely the result of an excessive introduction of air and over distension of the stomach ? One of the first reactions to the new field of gastroscopy was to find disease in all these variations.

It is useful in this connection to hark back to some of the observations made by the U.S. Army Surgeon, William Beaumont[11], between 1822 and 1833. In 1822 in Michigan an eighteen year old French Canadian voyageur, Alexis St. Martin, accidentally sustained a severe abdominothoracic gunshot wound with perforation of the stomach. Beaumont attended to him and he survived with a gastric fistula which did not leak unduly because the gastric mucosa prolapsed into it and blocked it. This prolapse could be pushed aside and the interior of the stomach and cardia observed. Beaumont made excellent use of his opportunity to observe the gastric mucosa and secretions : and among numerous other observations he recorded that there were marked changes in colour and secretion after the introduction of food, after mechanical stimulation, excitement from alcohol, and from fear and anger.

More recently Wolf and Wolf[12] made day by day and minute by minute studies of their 57 year old subject ' Tom ' who had his gastric mucosa exposed as a result of a gastrostomy performed for oesophageal stricture at the age of nine. They remarked on the increased redness and engorgement after food, alcohol, or even emotionally changed situations, and the fact that such changes were transitory.

Magnus and Rodgers have produced histological support for the view that prominent *areae gastricae*—the so-called ' pebble-beach ' appearance—is an anatomical and not a pathological occurrence.

These facts help one to mark the boundary between the normal mucosa and gastritis. Certain changes in the mucosa are generally accepted as evidence of gastritis—gross irregularity of the *areae gastricae* suggesting mucosal scarring, adherent patches of opaque mucus, irregular patches of congestion, irregular patches of atrophy. With these changes may be associated erosions, polypoidal changes, or small ulcers. There appears to be a tendency for atrophic changes to appear as a terminal stage of gastritis. There is also a tendency for thinning of the mucosa to run *pari passu* with a lowering of gastric acidity with advancing years ; this is probably a degenerative change.

GASTRIC ULCERATION.

The observation of gastric ulceration is one of the most important functions of gastroscopy. The innocence or malignancy of an ulcer is usually evident and in cases of doubt re-examination after two

to three weeks of medical treatment usually dispels the doubt. Healing of the innocent ulcer by contracture and filling in of the base and ingrowth of epithelium from the edge is well seen: and one's first impression is of the strong tendency to heal, particularly in the young and in those ulcers of short duration. (Figures 5 and 6). The second impression is of the great length of time often required, after the ulcer is about five sixths healed, for the last sixth to heal soundly particularly in the aged, in chronic deep ulcers, and in those with a thinner mucosa. (Figures 8, 9 and 10, 16 and 17.) This function of shewing final healing is a most important one: and here gastroscopy is superior to radiology, for it often shews incomplete healing long after the radiological niche has disappeared. There is no doubt that many of the failures of medical treatment are due to the fact that the ulcer was never completely healed. The importance of a good healing the first time the ulcer is treated cannot be overestimated, for each breakdown results in wider scarring and induration requiring longer and longer courses of treatment: and the longer an ulcer takes to heal the greater gastric deformity results and the more likely it is to break down again, usually at the site of the previous scar. (Figure 7.)

Gastroscopy is the most efficient means of assessing different methods of treatment of gastric ulceration. Abolition of symptoms is a poor guide in a disease so subject to spontaneous remission: such remissions nearly always occur at the time of the patient entering hospital, before any specific treatment is given: in fact many patients believe the gastroscope is a form of treatment because they rarely have much pain after the first three days in hospital during which they have gastroscopy, x-ray and fractional test meal! It is interesting to record that there is practically no difference in the rate of healing between patients in bed on special ulcer diets and frequent feeding, and patients in bed having three normal hospital meals a day (a plain and non-irritant diet it must be conceded). Similarly gastric ulcers appear to heal as well without as with alkalization. I have also observed healing to proceed normally in agitated patients, anxious about losing their jobs, and in heavy smokers. I advise my patients to abstain from smoking during treatment, but two years ago when two patients found they could not give it up I put them in a side ward and requested them to smoke as much as they possibly could. Such is human nature that one of them immediately was anxious to stop for the first time: but they smoked one about 15 the other 35 cigarettes daily, and both continued to heal though perhaps rather more slowly than usual. The latter has since relapsed and had a gastrectomy. Such findings of course are no argument against advising frequent small meals as a prophylaxis against recurrence, but suggest that continued bed rest is the major factor concerned with ulcer healing.

GASTRIC HAEMORRHAGE.

In an ulcer which is in danger of bleeding or after a haemorrhage one may see one or more dark spots in the base which indicate the site of a thrombosed vessel end. (Figure 8.) Occasionally a clot or white slough at the edge of a crater shews from where the bleeding has come. (Figure 15.) Often severe haematemeses or melaena may result from a small acute type of ulcer, which tends to heal in ten to twenty days. By the time the patient is fit enough to have a careful radiological examination the crater is gone, but gastroscopy can often be undertaken three to seven days after the bleeding and so more often shews the ulcer. Gastroscopy considerably lowers the number of occasions on which diagnosis of gastrostaxis is made. On one occasion a gastric haemorrhage was found to be due to bleeding from multiple telangiectases extending from cardia to pylorus. This patient had many similar lesions on other parts of his body (Rendu, Weber, Osler disease).

CARCINOMA OF THE STOMACH.

The opinion is often expressed that gastroscopy should be of value in getting patients with carcinoma of the stomach to the surgeon earlier. (Figure 11.) This is true but only to a limited extent, for the failure to get such cases early is due to no fault in the accuracy of radiological diagnoses but because in a large percentage of cases the patients arrive for investigation too late, or are inoperable when they first consult a physician. An attempt has been made to discover what one might designate a "cancer prone mucosa" with the object of keeping such cases under special observation. Carcinoma may be present in patients with a normal mucosa, but there is an increased proneness both for carcinoma and simple mucosal tumours to be associated with an atrophic mucosa. Gastric endoscopy occasionally does bring the carcinoma to surgery earlier, but it is more often the means of avoiding unnecessary laparotomy : in over sixty cases in the last five years (out of some 2,700 examinations) an area suspected from the radiological examination of being the seat of a neoplasm was clearly seen and found to be free of growth.

OTHER INDICATIONS FOR GASTROSCOPY.

There are many other indications for gastroscopy ; after gastric operations the suture line and recurrent ulceration may be seen. (Figure 12.) Simple tumours (Figure 13), diverticula (Figure 14), granulomata and scars when seen give valuable information.

There is no doubt now that gastroscopy is well established and there is a natural tendency to contemplate its future, and consider the possibilities of a duodenoscope. Rovsing[13] in 1908 devised a duodenoscope but it could only be passed after laparotomy or via a

low gastrostomy and so was of negligible practical value. Peroral duodenoscopy would probably demand prograde visualization and may follow the development of an even more flexible gastroscope.

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ACUTE INVERSION OF THE UTERUS FOLLOWING DELIVERY.

BY

CORALIE RENDLE-SHORT, M.B., Ch.M., M.R.C.O.G.

Tutor in Obstetrics, University of Bristol;
Senior Obstetrical Officer, Southmead Hospital.

ACUTE inversion of the uterus following delivery is one of the most rare complications of labour. According to Eden and Holland it only occurs in 1 in 180,000 to 1 in 200,000 labours. The following three cases have been dealt with in recent years at Southmead Hospital, Bristol; curiously enough the first two both took place within the same week, in the odd way which rarities have of occurring in pairs.

Case 1. Mrs. O. P., aged 29.

She had had one previous pregnancy, two and a half years ago, which was normal except for a severe post-partum hæmorrhage with a partially adherent placenta that necessitated manual removal.

During the present pregnancy she was attended by her own doctor in a country district. Labour commenced normally at 2 p.m. on 6th September, 1940, and he was called in at 8 p.m. to find the head on the perineum and the contractions strong. He immediately delivered her of a healthy male infant weighing 7 lb.; there was a second degree tear of the perineum. He waited twenty minutes and then without handling the fundus told the patient to strain down. She did so, and to his surprise the whole uterus came down outside the vulva, completely inverted, with the placenta attached. Hastily, without any "scrubbing up" he detached the placenta and pushed back the uterus, as he thought, to its normal position. The patient by that time was very shocked, and was treated by warmth and rectal saline. She improved somewhat, but there was a fair amount of bleeding throughout the night.

The following morning she was transferred sixteen miles to this Hospital by ambulance. On arrival at 11 a.m. she was found to be grey, cold and shocked, and was losing a fair amount of dark red blood per vaginum. The pulse was 112, of very poor volume, and her temperature was 98.4 deg. She was treated by warmth and morphia, and was given an immediate transfusion of two pints of Group "O" Blood; when she had recovered sufficiently an examination was made. Abdominally the uterus was just palpable 2 inches above the symphysis pubis; it was tender, flat at the top, and a "dent" could be made out. Vaginally there was some dark red bleeding. On internal

examination a soft mass was felt protruding down into the vagina; the cervix could not be made out.

At 7 p.m. the patient was taken to the theatre and anæsthetized with gas and oxygen. She was put up in lithotomy position, and the vulva and surrounding parts painted with picric acid in spirit. The vagina was exposed and the swollen œdematous bleeding mass could be seen; this was the uterus completely inverted. Blood clots were removed, and the whole area painted with picric acid solution; then by gently squeezing the uterus to reduce the œdema, the uterus was slowly replaced, the fundus going back last. Once reduction had been started it was fairly simple. Ergometrine 1 c.cm., and a hot intra-uterine douche were given. The condition at the end of the operation was satisfactory. She was given 10 c.cm. of anti-streptococcal serum (concentrated globulin) intra-muscularly, at once, and this was repeated the next morning.

The patient then, contrary to expectations, made an uneventful recovery. In spite of the grave risk of sepsis she only developed a temperature of 99.4 deg. on the third morning, and that immediately fell to normal. The lochia was a little offensive for the first five days, but was normal in amount, and soon cleared up. The uterus was involuted below the symphysis pubis by the 8th day. She was given iron and vitamins, but no sulphonamides. She was discharged well on 22nd September, 1940.

Case 2. Mrs. P. P., aged 27.

She was a primigravida—37 weeks—admitted at 3 p.m. on 11th September, 1940, in labour. She had been attended at home by her own doctor, and had been in bed with severe pyelitis for one month. She had a history of having had a stone removed from the left kidney three years previously.

On admission the patient looked ill and pale, and was complaining of frequent "sweating attacks," and acute pain in the left kidney region. The temperature was 98.2 deg., pulse 128. The urine was scanty, loaded with albumin and contained blood; she had frequent rigors after admission to hospital. She was treated by massive doses of alkalies, fluids by mouth, and morphia when necessary.

Labour proceeded normally until 2 p.m. on 12th September, 1940, when the cervix was fully dilated, and owing to her poor condition an anæsthetic was given, and a normal female infant weighing 5 lb. 10 oz. was delivered by forceps.

Immediately following delivery there was severe post-partum hæmorrhage. The uterus could not be felt abdominally so a hand was inserted into the vagina, and a partially detached placenta was felt in the uterus. A manual removal was performed with some difficulty, as part of the placenta was very adherent.

Ergometrine was given, but the uterus would not contract well; there was hardly any bleeding. By 7 o'clock, four hours later, her condition was very unsatisfactory. There was a continuous trickle of dark blood from the vagina, and it was still not possible to feel the uterus per abdomen. A second general anæsthetic was given, and a

vaginal examination made, and a completely inverted uterus was found. This was replaced and continuous intra-venous saline given, followed by a transfusion of two pints of blood.

She immediately started to improve, and eventually made a very good recovery. The temperature never rose above 100 deg., and the pulse soon settled. By 21st September, 1940, her hæmoglobin was 74 per cent.; the uterus was involuting well. She was discharged in a satisfactory condition on 10th October, 1940.

Case 3. Mrs. D. C., aged 20, primipara.

This girl had a perfectly uneventful pregnancy, and was sent to the country annexe of this Hospital for delivery.

On 20th April, 1944 she went into labour, and at 1.15 a.m. on the 21st was delivered of a living male child weighing 6 lb., the first stage lasting 5¼ hours, and the second stage 1½ hours. There was not very much bleeding, and ten minutes later the midwife expelled the placenta. She stated that it appeared complete, but the membranes were retained, and tore away from the edges as she delivered it. Following this the patient was rather shocked and lost several large clots of blood; ergometrine 1.c cm. was given, followed by liquid extract of ergot. She then collapsed completely, and the pulse was imperceptible, so medical aid was sought at 1.50 a.m., and anacardone given. Morphia ¼ gr. was ordered by 'phone, and given immediately.

On arrival at 2.30 a.m. I found the patient cold, pulseless, and a blue-grey colour. There were many dark clots on the sheet. It was not possible to feel the fundus of the uterus, but every time supra-pubic pressure was made more dark clots came from the vagina. The blood-pressure was 20/? A pint of blood was immediately run into a vein in the right leg, followed by a ½ pint of plasma. The blood-pressure rose to 75/?, and she became warmer, and the pulse could be felt at the wrist. It was still not possible to feel the uterus at all, and the unusual dark vaginal bleeding had increased to a steady trickle.

As she was somewhat improved it seemed advisable to explore the uterus. There were two possibilities, one that the uterus was inverted, or secondly, that a succenturiate placenta had been left behind. A general anæsthetic was given, a catheter passed, and a hand inserted into the vagina, with full sterile precautions. A soft mass could be felt, filling the vagina, which was recognized to be the inverted uterus. It was replaced with some difficulty, and having got it back it would not retract at all well, and it was not possible to feel it abdominally, in spite of the fact that she was a very thin woman. A hot intra-uterine douche of normal saline was given, and a further 1 c.cm. of ergometrine. The retained membranes were peeled off. At the end of the operation her condition was not good, and she was cold and clammy. A further pint of blood was given slowly, and by 5.10 a.m. she was very much better. The blood-pressure was 90/60, pulse 130, and there was practically no loss vaginally; still the fundus of the uterus could not be felt.

The patient made a very good recovery; she developed some pyrexia (100 deg.) on the 3rd and 4th days of the puerperium, and

was given sulphonamides by mouth, 2 grams initially, and then 1 gram. 4 hourly for four days: also iron, vitamins and osteocalcium. The interesting thing was that it was not possible to feel the uterus definitely per abdomen until the 5th day of the puerperium.

A vaginal examination was made on the 16th day; the lochia was alba, and the uterus involuted below the symphysis pubis, anteverted and not tender. She was allowed home on the 18th day, with her baby, which was breast-fed 3 hourly. A second post-natal examination was made six weeks after delivery; she appeared very well and had no trouble at all. The uterus was small, anteverted, and, if anything, was rather super-involuted. The cervix was in perfect condition.

These three cases, particularly the last, well illustrate the condition of acute inversion of the uterus. Traditionally it is supposed to occur as a result of pulling on the cord, but that was certainly not the cause here; it is more likely that it was due to pressure on the soft fundus. But when one sees the pressure that is sometimes used in trying to expel a placenta by tough midwives or doctors, one would have thought the accident would be much more frequent. No doubt the uterus is dimpled by the fingers, and it then contracts and turns itself inside out. Books describe degrees of inversion, partial and complete; I have on several occasions felt a depression in the uterus on trying to express an adherent placenta, and have immediately massaged the uterus and made sure it was very hard before trying again. In such a case, no doubt, the uterus could easily have become completely inverted. The fact however that pulling on the cord may cause the uterus to turn inside out is often demonstrated at Cæsarean Section, when deliberately delivering the placenta by pulling on the cord under direct vision. The uterus can be seen to start inverting itself, usually at the fundus or on the posterior wall.

The diagnosis of the condition is not always easy. The immediate collapse and very poor condition of the patient combined with the fact that the uterus is not palpable abdominally should suggest it. However, in very fat patients, or in cases where the uterus is very soft and flabby, it is also not easy to feel it abdominally, and the careful doctor may often suspect the condition, when as a matter of fact the uterus is normal, and doing vaginal examinations to explore may do a great deal more harm than good. Sometimes, of course, the dimpling of the fundus can be felt; and very rarely, the uterus comes right outside the vulva with the placenta attached, as it did in the first case.

The diagnosis seems to rest on four points: first the patient is more shocked than the amount of bleeding would suggest, though cases are described in which this is not so; secondly, the difficulty in feeling the uterus; thirdly, although various methods of resuscitation are being used the response is poor; and lastly, the

very unusual type of vaginal bleeding. In the first and third cases this was particularly noticeable. It is not the usual bright red hæmorrhage, but very dark red blood, which trickles away, and on supra-pubic pressure dark clots are expressed. Again it is not the same as the old black clots that are expressed after a concealed accidental hæmorrhage.

The treatment adopted was, first to deal with shock, by moderate warmth, raising the foot of the bed, morphia and blood transfusion; when the patient has sufficiently recovered, as seen by the blood-pressure rising, it is probably best to replace the uterus under a general anæsthetic. The method that proved successful in all these cases was to place the patient on her back, or in lithotomy position, pass a catheter, and then with full sterile precautions introduce the whole hand into the vagina. The uterus is identified bulging down, but of course the cervix cannot be felt. It is important to make sure one is not dealing with a large fibroid protruding down into the vagina. (In that case of course the uterus should be felt above.) The fundus of the uterus is taken into the palm of the hand, and the rim where the uterus joins the vagina identified. The uterus is squeezed by the hand to reduce œdema, with pressure by the fingers in the fornices, and it is replaced gradually from below upwards, the fundus going back last. The thing *not* to do, is to try and replace the fundus first by pushing on it.

When the uterus is in the correct position ergometrine or pituitrin should be given. It is very useful in urgent cases to give it directly into the cervix with a long needle. Following this a hot intra-uterine douche should be administered. In giving the douche care must be taken not to raise the reservoir much above the level of the patient, as it must not be given under pressure, or fluid may be forced along the tubes into the peritoneal cavity. Normal saline at 118 deg. seems the best solution to use as it is completely non-irritating, even if some were to get into the veins of the placental site. Blood transfusion is of course absolutely life-saving in such cases, especially when the blood can be got in quickly, and continued during and after the operation.

The puerperium was, in every case, very satisfactory, and involution was complete.

I am grateful to the Medical Officer of Health, and to Dr. P. Phillips for allowing me to publish these cases.

OBSERVATIONS ON SOME ROCK CARVINGS OF SURGICAL INSTRUMENTS IN EAST AFRICA

BY

M. NIERENSTEIN, D.Sc.

Formerly Reader in Bio-Chemistry, University of Bristol.

LONG before I had an inkling that I would ever visit Africa, I was interested in the ruins of Zimbabwe[1] and other works[2] bordering on the subject. My reading, however was purely amateurish as I have no knowledge whatever of archæology, mineralogy, etc., the essentials for the serious study of the subject. When I finally did visit Africa, my interests were botanical with a strong surgical bias, as I had intended to specialize in surgery when I studied medicine nearly 50 years ago. As soon as the opportunity offered itself I visited the Great Zimbabwe[3] and I shall always remember the awe I felt when I stood before this edifice of a forgotten civilization. Subsequent visits to Africa took me many times to Zimbabwe and some of the other Zimbabvic ruins so widely scattered all over Rhodesia, as evident from the admirable map published by Hall and Neal[1]; and on one occasion I spent over two weeks botanizing at Zimbabwe and its surroundings in a 60 miles radius. Although my time was devoted to botany, my thoughts turned to that eternal question : Who were the builders of these ruins ?

In this essay I give my observations on drawings showing instruments traced by me in Southern and Northern Rhodesia, the Eastern corner of the Belgian Congo, Tanganyika, Portuguese East Africa and Nyasaland. Of the 160 illustrations I have seen 18 were on rocks and hills, 48 on stones on inland roads and paths and 94 were situated on river banks, lakes and in swamps. This is contrary to the usual distributions of rock carvings and paintings which are generally found on the tops of hills, mountains and rocks.

Here again we are faced with the question who were the men who cut these figures and why were they cut ? Lack of knowledge suggests the hypothesis that these illustrations indicate the dwelling places of practising surgeons. These practising surgeons were not of the type of the traditional witch doctor (Shopo) but trained Inyatas[4], and the difference between a witch doctor and an inyata is fully realized by the East African native.

This brings us to the second question : where had these inyatas been trained ? At Zimbabwe, for which I found no evidence, at Alexandria or elsewhere ? To judge from the illustrations I have seen, these surgeons were in no way under the influence of Arabic

surgery. Arabic surgical instruments are angular[5] and thus easy to draw, but none of the illustrations I have seen showed any evidence of angularity. Zimbabwe surgery, to give it a provisional name, was an Egypto-Greco-African product, and for the time being East African surgery is best dealt with separately from other types of surgery.

The illustrations found by me consisted of :—11 cupping cups, one of which was a cow's horn as still used by the Basuto, 58 knives, 3 knives for the Caesarean operation, 9 small bows and arrows for the puncturing of blood vessels, 8 squares with holes in the middle, 17 trepanning instruments, 4 instruments for the operation on haemorrhoids according to Hippocrates, 27 surgical needles, 17 pincettes, 13 canulas, 7 nails with flattened heads, 2 illustrations showing the Hippocrates operation for haemorrhoids and 1 illustration showing the urinary system of a eunuch. The absence of instruments for amputations is noteworthy and is probably due to the natives' dislike of losing limbs, a dislike which has survived to the present day.

The following observations are essential for the interpretation of the surgical instruments used by the Zimbabwe surgeons :—

1. The squares with holes were at first difficult to understand, but my visits to the swamp of Lukanga and the lakes of St. Joseph and Rukwa in the company of Inkos Inkota[6] offered a solution. I noticed that some of the carriers wore thin squares of lead strapped on their backs and that the abscesses they had were visible through holes in these strips. In the evenings the carriers used to unstrap and foment the abscesses with a mash of hot leaves and then next morning strap the lead strips on. By taking swabs which contained lead, I found that the pus dissolved the lead. From this I concluded that the lead acts as a disinfectant of the wound. The Inkos also told me that this method of treating festering wounds, especially war wounds, was very old and he showed me old assagai scars which had been treated in this manner 30 or more years ago.

2. Gurlt[5] points out that the caesarean operation is of very long standing and was already practised in Egypt during the XI and XII Dynasties (2130–1930 B.C.) perhaps earlier.

3. *Trepanning* was used and is still practised in East Africa in mental diseases such as epilepsy, hysteria, etc. Reference should be made to Larry[7], Schreger[8], Tillmanns and Hartmann[10] as to the theoretical aspect of this form of treatment.

4. The following is a free translation describing the operation for haemorrhoids according to Hippocrates (460–337 B.C.): "I recommend an iron rod 8–10 inches long and of the thickness of a little finger hammered out at one end to the size of a small obolas (silver 3d. piece). On the day preceding the operation the patient

is given a strong purgative. On the day of the operation the patient is laid on his back and a hard pillow made from wood covered with hide is pushed half way down the spine. The haemorrhoids are exposed by pressure with one's fingers on the anus. At the same time the instrument is made red hot and each individual haemorrhoid touched with red hot plate. Care must be taken that not a single haemorrhoid is missed: this is not impossible as each haemorrhoid is the size of a small berry. The blood oozes out as the hot iron touches the haemorrhoids and care must be taken that it does. During the operation, the hands, legs and head of the patient are held down; he must be kept stationary. Yelling of the patient is useful as it forces the rectum out and thus exposes otherwise hidden haemorrhoids." In the two pictures found by me the patient is not on his back, but his backside faces the onlooker and the instrument touches the anus.

5. The nails with flattened heads were used, according to Godard[11], [12] in castration. Godard had the opportunity of seeing a number of castrated boys and of examining them. He reports that long nails with the flattened side outwards were inserted in the bladder through the wound after removal of the scrotum. This kept the wound open and facilitated urine excretion through the open hole during which time urination could only take place when sitting down, as the penis is atrophied for a considerable time. During this time which lasts from 8–10 months the urine contains pus. As the wound heals the penis recovers and becomes more or less normal, but the patient suffers from suppression of urine and has to insert a canula and to take strychnine. The illustration seen by me showed the penis and canula. Of interest is also that the face of the individual depicted was that of a Semite.

It is obviously impossible to judge from the drawings the material from which the instruments were made, but some were, to judge from the illustrations, made out of stone. Again, whereas the illustrations given by Gurlt[5] had been made from the actual instruments found in museums and had thus either wooden or leather handles, as for example the knives used in the caesarean operations, the carvings I have seen had no handles. There were several illustrations of small stone knives which are still used in East Africa for circumcision, clitoridectomy and in operations for calculus.

During a prolonged stay on the Limpopo, I witnessed the preparations for circumcision and clitoridectomy. From 2 to 4 a.m. the boys and girls, some 40 in number of each sex, stood up to their waists in the cold water of the Limpopo which numbs the lower part of their bodies, and soon after 4 o'clock they were operated on. During all that time several hundred natives swam round them and protected them against crocodiles, which abound in the Limpopo.

I was later on shown the operating knives, made from broken pieces of bottle glass, perfectly ground and sharpened. I was given one of these knives, and for a long time, until I lost it, it kept its sharp edge.

To judge from the surgical illustrations I have seen, the "Zimbabwe" surgery had its roots in the Stone Age and, using that admirable work of Hall and Neal, I have come to the conclusion that it stopped at about A.D. 600, that is before the time East Africa got into contact with the Arabs.

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[2] Sollas, *Ancient Hunters* . . . , 1915, London.

[3] Zimba means lion in several native dialects.

[4] Inyata means snake, wisdom, namely "doctor."

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[12] According to Burckhard, *Travels in Nubia*, 1819, London, Zawyet-et-deyer near Suit in Upper Egypt produced as many as 200 eunuchs every year from Negroes, Europeans, etc. The ages of the boys castrated varied from eight to twelve years and they were sold for £100 to £200 per head when they had reached the age of eighteen years.

SELECTION OF MEDICAL STUDENTS

BY

FRANK BODMAN, M.D.,

Acting Director: Bristol Child Guidance Clinic.
Psychiatrist, Somerset County Council.

(Read to the Study Group, Bristol Division, B.M.A., 16th February, 1945.)

In considering the question of selection of medical students, we must take into consideration the greatly increased number of doctors required to implement a national medical service. We must also bear in mind the implication of Mr. Butler's Education Act. More boys and girls will receive a secondary education, and more adolescents will see their ambition of becoming a doctor become a practical possibility, particularly as further grants to universities, a million pounds for medical education, may make the education of these boys a practical proposition.

Why should selection be necessary if increased numbers are wanted? Why not take them all? On purely economic grounds it would be wasteful to spend State money on training unsuitable candidates. From the point of view of the candidates themselves, it would be unfair to permit them to start on a course of training taking several years if they were for various reasons unfitted for the profession. But the main argument would be that it was contrary to the public interest to enlist in the profession men and women who were incapable of becoming "proper" doctors.

What are the motives, the incentives which influence a student to take up medicine? The obvious ones are the conscious ones, but such choices are also to a large extent determined by unconscious motives.

Of the obvious motives there are:—

1. Security. Although the monetary rewards are not comparable with those of many other walks of life, they are sufficiently good to be attractive, particularly in times of depression.

2. Social prestige, particularly to the clever boy who comes from a skilled worker's home, the status of the doctor makes some appeal. He drives about in a car, has a bigger house than most of his patients, and is looked up to some extent as a leader.

3. Curiosity—scientific interest. The workings of the human organism are a tremendous source of interest to intelligent laymen.

and a desire to know more about them is often a quite compelling drive to read medicine.

4. Humanitarian drives. The conscious wish to be of service to fellow human beings is quite a powerful drive in a small percentage of cases. This is a factor perhaps more commonly observed in women.

5. The wish to follow in the father's footsteps, more rarely in the mother's. This is not a very common factor—less common than we realize perhaps. Probably not more than 20 per cent. of doctors' sons take up medicine.

These perhaps are the more common overt drives, the drives admitted in consciousness. But combined with these drives are often drives which are unconscious in origin, and not so easily admitted. Perhaps the more common unconscious drive is a will to power. The doctor because of his special knowledge and his experience is bound to be looked up to as an authority. In a civilization where many people in peace time have never witnessed a birth, or seen a corpse before they are forty, the doctor with his long experience of these fundamental events is looked up to as an authority in times of crisis even if he is disparaged in between times. And those individuals with a will to power, conscious or unconscious, are bound to be attracted to a profession that carries the keys of life and death. Their superior knowledge, their extensive experience, places them at an advantage over the layman.

Another quite frequent unconscious drive is the need to come to terms with death. It is not uncommon for the young boy or girl to decide to take up medicine after the serious illness or death of one or other parent. This threat to their security must be mastered in the future. They must arm themselves with the knowledge which will ward off this threat, or this loss. Sometimes it is not the threat of death or actual bereavement of a parent; it may be the fear of death as a personal threat that unconsciously influences the adolescent to take up medicine.

Of course, in most instances the decision to be a doctor is the resultant of a number of drives, conscious and unconscious; but it can be well appreciated that the best doctors will not be those who have been mainly driven by factors which are prestige factors—overt desire for improved social status—or unconscious desires to dominate others.

We have then so much raw material, ambitious, scientific, humanitarian, hero-worshipping, looking-for-a-safe-job, wanting-to-dominate, unconsciously-afraid-of-death.

And we hope to turn this raw material into what? We expect the medical student not only to acquire the necessary professional knowledge and skill, but we also expect him to acquire the professional attitudes—and here we may pause to ask ourselves what is a

professional attitude ? It involves a respect for other people as human beings, as persons with their own rights. It involves a responsibility for the work done for those people. The job must come first. One can recognize the professional attitude not only amongst the learned professions : one can recognize it in policemen, wardens, shelter-marshals. Their responsibility for other people comes before personal considerations. Choices must be made, risks must be taken, which involve the health and lives of other persons ; but the responsibility for those choices, for those risks, cannot be pushed off on to others—they are the doctor's responsibility. The Bible has a word for it : " He that is a hireling and not a shepherd, whose own the sheep are not, beholdeth the wolf coming and fleeth, and the wolf snatcheth them and scattereth them ; he fleeth because he is a hireling and careth not for the sheep."

So that there are two main objectives to be attained : (1) the professional skills and knowledge, (2) the professional attitude. The first is a matter largely of intelligence supported by special factors. The second is a question of temperament and personality.

The medical student :—

1. Must have ability to use all the senses in keen observation, with a capacity for a new range of appreciation of what is significant.

2. Should be able to express in accurate words what is observed, and the meaning of his observations.

3. Needs a flexible mind, capable of associating quickly and easily ; he must be able to make comparisons easily ; he must sense the general in a mass of particulars, and apply general principles to particular instances. That is to say, he must be able to synthesize as well as analyze ideas and concepts.

Those are the intellectual requirements.

Then as far as personality goes :—

1. He must be able to identity with a variety of people, in many situations—be all things to all men—without losing his intellectual integrity.

2. He must be able to feel appropriately to the situation without losing the ability to see it in perspective so that he can help the patient who is so submerged in his pain, suffering, and anxiety, that he cannot see beyond it.

3. He must be able to express warmth of feeling in appropriate ways, if he is to create confidence in the doctor-patient relationship.

You will say, this is a tall order, and how are these things to be judged in an adolescent ? It is true there are grave difficulties here. for the medical student at the beginning of his career is economically —often emotionally—still dependent on his family, and if he is to mature must become independent. Moreover, biologically he is still

in the process of making adjustments to the opposite sex, and has for the most part not achieved a more than partially mature attitude. Both these important processes—detachment from the family and adaptation to the opposite sex—are bound to have a disturbing effect on his emotional stability, so that such a time is not the optimum time for an assessment.

For the intellectual factors in acquiring professional knowledge and skill, it is possible now to give intelligence tests which can rule out those whose intellectual capacities are such that they cannot achieve the necessary standards: (the base line will probably be found at an I.Q. of 115). Probably the Matrices Test is the best test for conceptual thinking.

But for the personal and temperamental factors there can be no standardized test at the moment. The range of medicine from the laboratory to the bedside is so great that job-analysis is not feasible in the present state of our knowledge, and in any case we are unlikely to reach absolute standards; we can only achieve relative ones.

The examiner will always be limited to some extent by his unconscious reactions to the candidate, and his own unconscious attitudes to the profession. These unconscious factors, because they are unconscious, are beyond control. But in the really mature individual, there are smaller and smaller biases, and the relative standards approximate closer to the ideal. These personal and temperamental factors, therefore, can only be assessed by the technique of the interview. But the interview is a very skilled technique, which requires special experience and special attitudes. There are not many people qualified to do this job, and personal qualifications are probably more important than academic status. It does not necessarily follow that a dean or a professor of medicine would make the best interviewer. It required someone with the broadest possible experience of life, and a special experience of watching and teaching students to assess the still only partly developed capacities, and gauge how far the personality of the student will be developed by the experiences of life encountered in his training. But some of his pointers will be the eagerness for new experience. the family tradition of work, the estimated capacity for professional feeling, the degree of self-discipline attainable, and the amount of responsibility likely to be developed.

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Reviews of Books

The Medical Annual, 1945. Edited by SIR HENRY TIDY, K.B.E., and A. RENDLE SHORT, M.D., F.R.C.S. Pp. lxxviii., 410. With 47 plates. Bristol: John Wright & Sons Ltd. Price 25s.—This admirable conspectus of the progress of medicine is the sixty-third volume of the Series. Two wars have not interrupted its yearly publication, and we are glad to see that the Ministry of Supply has allotted to the publishers sufficient paper to permit of a slight increase in the size of the issue. There is one subject which although not so very new is included for the first time in the *Medical Annual*, namely "Vital Statistics." This is reviewed by Dr. Percy Stocks, Medical Statistician at the General Register Office, Somerset House, who was for a time a School Medical Officer in Bristol. His review deals with four broad groups of figures dealing with Population, Natality, Mortality and Morbidity: and the facts he sets out are not nearly so dull as might be anticipated. He makes figures talk! In Therapeutics one of the most recent advances discussed is the value of penicillin in Gonorrhœa and Syphilis. There is also an excellent general review of penicillin. The astonishing success of ligation of the patent ductus arteriosus in children is briefly but clearly described. The article on Diabetes Mellitus seems somewhat disinclined to admit the value of globin insulin, possibly longer experience will tend to bring this preparation into greater favour. A thoughtful evaluation of the Kenny treatment of Poliomyelitis is contributed by Macdonald Critchley. One of the longest and most instructive articles is that on Primary Atypical Pneumonia by Colonel William S. Middleton of the U.S. Army Medical Corps. The pros and cons of Mass Miniature Radiography of the Chest are set out in considerable detail and with laudable impartiality. Wright's *Medical Annual* must be congratulated on having come successfully through exceptional trials during the war and we hope that within a year or two it may be restored to its former size, thus extending its acknowledged usefulness.

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The Life and Teaching of Sir William MacEwen. By A. K. BOWMAN, M.B., Ch.B. Pp. xii., 425. Edinburgh: William Hodge & Co. 1942.

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Elementary Morphology and Physiology. Third Edition. By J. H. WOODGER, D.Sc. Pp. xvi., 522. Illustrated. London: Oxford University Press. 1943. Price 15s.—This is a textbook of zoology suitable for the student reading for the first M.B. It is not a dissecting manual, and presupposes the use of such by the dissector. It gives a description of a considerable number of animal types of interest to the medical student, and discusses in a simple manner the theoretical relations between them and the problems of function. Some chapters, such as that on genetics, are not so simple. There is a brief reference to the development in past geological time of some of the animals discussed. The illustrations are mostly of the nature of diagrams of microscopic sections. Embryology is carefully considered. To doctors who have a taste for biology this book can be commended, as well as to students.

Tropical and Sub-tropical Diseases. By C. H. BARBER, D.S.O., M.D. Pp. x., 189. Illustrated. London: Oxford University Press. 1942. Price 5s.—This little book of 189 pages is intended to be used for reference by medical men serving with the Forces in the tropics. In so small a compass one cannot expect a full account of any disease, and one would expect the author to confine himself to some entirely practical instructions for diagnosing and treating the commoner disorders likely to occur among the troops. It is disappointing, therefore, to find that an attempt has been made to say a few words about a very large number of conditions, some rare and others unimportant. More than a page is devoted quite unnecessarily to the history of malaria and a few lines,

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The Life and Teaching of Sir William MacEwen. By A. K. BOWMAN, M.B., Ch.B. Pp. xii., 425. Edinburgh : William Hodge & Co. 1942.

Price 21s.—This is a most appreciative account of the life and work of MacEwen, written by Dr. Bowman, Regional Medical Officer of Health for Scotland, who was at one time one of MacEwen's pupils. There are very few men of our day of whom it could truly be said, as of MacEwen, that a history of his life was a chapter of the history of modern surgery. In this respect he compares with the Mayos and Moynihan. In almost every branch of surgery he was a pioneer and a leader. A pupil of Lister, and following him as he did in the Chair of Surgery of Glasgow, it was natural that he should be one of the leaders of the new doctrine of antiseptics. He was an orthopedic surgeon, long before that term was used and his work in transplantation of bone and the growth of bone was of an epoch-making and enduring character, whilst its scientific value was at once recognized and led to his being elected as a Fellow of the Royal Society. In general surgery he did bold work on the subject of the treatment of aneurysm, he was one of the first to treat laryngeal stenosis by intubation. But there are two special branches of surgery in which he became leader and teacher; these were cerebro-spinal and lung surgery. In the former it was he who did so much pioneer work about the origin of septic disease of the brain and meninges. In the latter his success in partial or total extirpation of the lung leaves us in a state of wonder and amazement that such heroic measures should have been carried out without the aid of X-rays, or the help of modern instruments.

Elementary Morphology and Physiology. Third Edition. By J. H. WOODGER, D.Sc. Pp. xvi., 522. Illustrated. London: Oxford University Press. 1943. Price 15s.—This is a textbook of zoology suitable for the student reading for the first M.B. It is not a dissecting manual, and presupposes the use of such by the dissector. It gives a description of a considerable number of animal types of interest to the medical student, and discusses in a simple manner the theoretical relations between them and the problems of function. Some chapters, such as that on genetics, are not so simple. There is a brief reference to the development in past geological time of some of the animals discussed. The illustrations are mostly of the nature of diagrams of microscopic sections. Embryology is carefully considered. To doctors who have a taste for biology this book can be commended, as well as to students.

Tropical and Sub-tropical Diseases. By C. H. BARBER, D.S.O., M.D. Pp. x., 189. Illustrated. London: Oxford University Press. 1942. Price 5s.—This little book of 189 pages is intended to be used for reference by medical men serving with the Forces in the tropics. In so small a compass one cannot expect a full account of any disease, and one would expect the author to confine himself to some entirely practical instructions for diagnosing and treating the commoner disorders likely to occur among the troops. It is disappointing, therefore, to find that an attempt has been made to say a few words about a very large number of conditions, some rare and others unimportant. More than a page is devoted quite unnecessarily to the history of malaria and a few lines,

often inaccurate and out of date, are given to the pathology of each disease mentioned. The instructions for treatment are equally brief and while generally omitting to mention the strength of solutions recommended often include tit-bits of historical interest. We hope that no one will adopt the practice, recommended by the author, of burning the houses of natives suffering from yaws: the measure is unnecessary and likely to lead to unfortunate political developments. In short, the book is without merit and in our opinion was not worth publishing.

Penicillin in Warfare. *Special Issue of The British Journal of Surgery, Vol.* XXXII. Pp. 112. Illustrated. Bristol: John Wright & Sons Ltd. 1945. Price 12s. 6d.—This issue of 112 pages is a mine of information on the part played by Penicillin in traumatic surgery. It consists of a series of articles by surgeons and pathologists, acknowledged experts in their special fields, who have had experience of the use of Penicillin in all manner of war injuries involving soft tissues, bones, the thorax, the head and the spine. There are many illustrations and the text is full of detailed directions for the proper treatment of conditions that occur not only in warfare, but also in civilian practice. The treatment of gas gangrene is described and there are notes on the use of Penicillin in gonorrhœa and syphilis. A valuable feature of most of these articles is the attention paid to the necessary bacteriological control of treatment, and the reader may well be surprised to see what care was taken to study the bacterial flora throughout all stages of the cases here described. In one of the first papers Lieut.-Col. Jeffrey draws attention to the limitations and misuses of penicillin and the same scrupulous standards are maintained by all the authors of this most valuable symposium. The appearance of this special number of the *British Journal of Surgery* is most timely; it provides the busy surgeon with an admirably handy guide to the role of Penicillin in traumatic surgery.

Physical Signs in Clinical Surgery. Ninth Edition. By HAMILTON BAILEY, F.R.C.S. Pp. viii., 351. Illustrated. Bristol: John Wright & Sons Ltd. 1944. Price 25s.—This book is chiefly remarkable for the wonderful collection of illustrations, many of them in colour. This commendation must not be taken as any disparagement of the text, which is also excellent. It would be difficult to think of another book which could be as useful to student, general practitioner, or surgeon, in enabling him to make a diagnosis from clinical signs, both of the more common and less common surgical diseases and accidents. A pleasing feature is the line of description in the footnotes of each surgeon or pathologist whose name is mentioned.

Pye's Surgical Handicraft. Fourteenth Edition. By HAMILTON BAILEY, F.R.C.S. Pp. xi., 628. Illustrated. Bristol: John Wright & Sons Ltd. 1944. Price 25s.—This book is described as a manual of minor surgery and matters connected with the work of surgical dressers.

house surgeons and practitioners. It is an invaluable book to this section of the profession, and is in effect a comprehensive collection of the details of a great number of technical procedures. If anything, it is too comprehensive and in consequence some parts are less full than others. It is an excellent work which quite definitely supplies a need amongst the section of the profession to which it is addressed. The illustrations are numerous and excellent, and the book is well set out. The type and paper are up to pre-war standards, but it is to be regretted that few if any references are given.

Diseases of the Eye. Second Edition. By EUGENE WOLFF, M.B., B.S., F.R.C.S. Pp. xii., 222. Illustrated. London: Cassell & Co. Ltd. 1942. Price 21s.—In the second edition of his text-book for students and practitioners, the author, while retaining all the features which made its predecessor so acceptable as a guide to the beginner in ophthalmology, has now added to them by the inclusion of additional illustrations, further details of treatment, and a chapter on bandaging. He is well aware of the practical difficulties in teaching the subject, and has been most successful in presenting it in an interesting form. The text includes descriptions of all the usual (and some of the less common) eye diseases, of methods of examination, of correcting errors of refraction, and of the standard major and minor ophthalmic operations. Brief but adequate notes on anatomy and pathology are augmented by excellent annotated drawings and reproductions of microscope sections. The illustrations, comprising 128 in the text and five colour plates, are particularly good, while the large size of page allows of their convenient placing in reference to the descriptive matter. This is a very attractive volume, and can be recommended with confidence to those for whom it was written as one of the best shorter ophthalmic text-books.

Industrial Toxicology. By DONALD HUNTER, M.D., F.R.C.P. Pp. 80. London: Oxford University Press (Humphrey Milford). Price 10s. Dr. Hunter's Croonian Lectures for 1942, which have already been published in the *Quarterly Journal of Medicine*, now appear in very handsome book form. These lectures give a detailed review with full bibliography of the effects of toxic substances encountered in industry. The information is of the greatest importance to industrial medical officers as well as to certifying surgeons and medical referees under the Workmen's Compensation Acts. Every practitioner will be glad to know where to turn to in cases of doubtful industrial diseases from which his patients may be or may claim to be suffering. This is a work of great authority.

Introduction to Diseases of the Chest. Second Edition. By JAMES MAXWELL, M.D., F.R.C.P. Pp. xii., 292. Illustrated. London: Hodder & Stoughton Ltd. 1945. Price 12s. 6d. net. The principal change in this second edition of a book that is an established favourite consists in presenting the X-ray illustrations as negatives. This is the

form in which they are studied in actual practice and is a great improvement. We could wish that Dr. Maxwell (with Gee's little book beside him) had re-written his Chapter on auscultation and had not persisted in spelling sibilus with a double "l."

Pharmacology. Second Edition. By J. H. GADDUM, D.Sc., M.R.C.S., L.R.C.P. Pp. xvi., 436. Illustrated. London: Oxford University Press. 1944. Price 21s.—In the second edition of this book, Professor Gaddum shows himself to be a very reliable guide among the intricacies of modern pharmacology. Clearly, concisely, and lighting the way with flashes of humour, he leads us through the experimental basis of pharmacology, warns us of the snags, statistical and others, displays much useful information in charts, tables, and structural formulae, and leaves us with a "key to the interpretation of chemical names," so that in the future we can venture into the promised land of therapeutics. On his way he deals with almost every substance of real use in medicine and makes kindly mention of many old and favourite drugs not always so favoured these days. The peripheral neuritis of lead and the escape of the brachioradialis is an old skeleton that he might well cover up, and poor Thomas Dover is libelled once again, the toxicity of Lewisite is under estimated, and so is the ease with which mercurial diuretics will clear the body of Vitamin B, but these are small points to cavil at in a book that will be widely welcomed. Teachers will welcome it as the only small book that will give students an insight into the experimental side of pharmacology, and the students will value it for its lucidity and ease of reading, and practitioners should welcome it as a handy reference to the best of both old and new remedies.

Treatment of Shock. By R. W. RAVEN, F.R.C.S. Pp. 96. Illustrated. London: Oxford University Press. 1942. Price 5s.—Those who remember the Oxford War Primers of 1914-18 will find this present series of War Manuals, to which this book belongs, maintaining the same high standard. In this small book shock is very adequately described. All the latest advances receive attention. The pathology and treatment of secondary shock are fully given, whilst methods of oxygen administration, blood and plasma transfusion are described. Anæsthesia and surgical shock also receive attention. The book is of handy pocket size, well illustrated and printed. The list of references at the end should prove most useful. Anyone desiring a record of this subject in concise and practical form will find this book invaluable.

Tuberculosis in Childhood. First Edition. BY DOROTHY STOPFORD PRICE, M.D. Pp. vii., 215. Illustrated. Bristol: John Wright & Sons Ltd. 1942. Price 17s. 6d. net.—This unpretentious looking volume is packed full of information. The author has a very extensive background of experience, and has covered clearly and adequately the ground indicated by the title. It is a very valuable book for anyone looking for a comprehensive and authoritative account of the subject. Ranke's classification into three stages is adopted and justified by an imposing weight of illustration and argument. The tuberculin skin

reaction is made the main foundation in diagnosis. The facts about tuberculin surveys are impartially set out; some of the deductions are not self-evident. Incidentally, it is a curious reminder of the neutrality of Eire to find the Hamburg ointment "produced by Dr. Fresenius, Frankfort-on-Main, Germany," recommended as the one to use in diagnosis. The volume concludes with an admirable chapter by Mr. H. F. Macauley on tuberculous lesions of bones and joints, which in less than thirty pages gives a more intelligible account of the subject than some books devoted to it. There is a very useful bibliography and index. This is a book which those interested in tuberculosis cannot afford to overlook.

A Guide to the Surgical Paper with Questions and Answers. Second Edition. By R. J. McNEILL LOVE, M.S., F.R.C.S. Pp. 79. Illustrated. London: H. K. Lewis & Co. Ltd. 1944. Price 6s.—This book is intended as a help to a candidate faced with a written paper in a surgical examination. In his introduction, the author gives a few useful tips which may seem obvious, but are, nevertheless, frequently neglected, such as allowing oneself enough time for each question and trying to grasp the meaning of the question. He then proceeds to discuss various terms recurring time and again in examination papers. The bulk of the book consists of thirty specimen questions to which skeleton answers are supplied in a sealed part of the book. These answers are necessarily very condensed and schematic. This book is certainly most useful as a short guide to any candidate for a written surgical examination and should help candidates to do themselves justice in their surgical papers.

Editorial Notes

The Society and The Journal.

Now that the War is over the meetings of the Medico-Chirurgical Society will be resumed. Since the *Journal* exists primarily for publishing the Society's Transactions, the Editorial Committee looks forward to re-establishing the quarterly issue of this *Journal*. We owe a debt of gratitude to our readers and advertisers for their sympathetic forbearance of our shortcomings.

Victory in Europe.

ON Tuesday, May 8th, 1945, the Prime Minister, Mr. Winston Churchill, announced the surrender of Germany to the Allied Nations and the cessation of hostilities in Europe. No better account of this momentous occasion can be given than by quoting from the Prime Minister's statement to the House of Commons :—

"Yesterday morning at 2.41 a.m. at General Eisenhower's Headquarters, General Jodl, the representative of the German High Command, and of Grand Admiral Dönitz, the designated Head of the German State, signed the act of unconditional surrender of all German land, sea and air forces in Europe to the Allied Expeditionary Force and simultaneously to the Soviet High Command. . . . Our dear Channel Islanders will be free to-morrow. Hostilities will end officially at one minute after midnight to-night, Tuesday, the 8th of May, but in the interests of saving lives the 'cease fire' began yesterday to be sounded on all fronts. . . . The German war is therefore at an end. After years of intense preparation, Germany hurled itself on Poland at the beginning of September, 1939, and in pursuance of our guarantee to Poland and in common action with the French Republic, Great Britain, the British Empire and Commonwealth of Nations declared war against this foul aggression. After gallant France had been struck down, we from this island and from our united Empire, maintained the struggle single-handed for a whole year until we were joined by the military might of Soviet Russia and later by the overwhelming power and resources of the United States of America. Finally, almost the whole world was combined against the evildoers who are now prostrate before us. Gratitude to our splendid Allies goes forth from all our hearts. We may allow ourselves a brief period of rejoicing, but let us not forget for a moment the toils and efforts that lie ahead. Japan, with all her treachery and greed, remains unsubdued. The injuries she has inflicted upon Great Britain, the United States and other countries and her detestable cruelties call for justice and retribution. We must now devote all our strength and resources to the completion of our tasks both at home and abroad. Long live the Cause of Freedom! God Save the King!"

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Regius Professor at Cambridge.

H.M. THE KING has appointed Sir Lionel E. H. Whitby, C.V.O., to be Regius Professor of Physic in the University of Cambridge. This appointment has certainly one aspect of novelty, for the Chair of Physic has for very many years been occupied by clinicians. The brilliant work Sir Lionel Whitby has performed during the war, when he organized and commanded the Army Blood Transfusion Unit at Southmead, is thus fittingly recognized. The University of Cambridge may be congratulated on an appointment that will add further prestige to the Faculty of Medicine.

Medical Director General R.N.

Surgeon Rear-Admiral H. St. C. Colson, C.B.E., until recently commanding officer at R.N. Auxiliary Hospital, Barrow Gurney, has been appointed Medical Director-General of the Royal Navy. In the war of 1914–18 this officer was decorated and promoted for his brilliant work during the Zeebrugge attack. His administrative abilities during the recent war have received the recognition they deserve. It will be a long time before our Society can again record at the same time such outstanding preferment for two of its members.

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Appointment of Professor of Surgery.

ROBERT MILNES WALKER, M.S., F.R.C.S., has been appointed Professor of Surgery in succession to Professor Rendle Short. Mr. Milnes Walker obtained Gold Medals in the M.B., B.S., and M.S. examinations in London University. After being Assistant in the Surgical Unit at University College Hospital, he was appointed Surgeon to the Royal Hospital, Wolverhampton. During the war he has acted as Group Adviser in Surgery in the E.M.S. Region 9.

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Hospital Survey of the South-West.

THE Survey of the Hospital Services of the South-Western Area (Region 7) has been published. It is a very complete report divided into two parts, like all the other Surveys. The first part contains full descriptions of hospital accommodation in the Counties of Gloucester, Somerset, Wiltshire, Devonshire and Cornwall, together with the County Boroughs of Bristol, Gloucester, Bath, Exeter and Plymouth, as it existed in Mid-1938. The total population at that date was estimated to be 2,645,980. The number of institutions dealt with was 298, distributed as follows :—

Voluntary General Hospitals ..	98
Municipal General Hospitals ..	4
Voluntary Special Hospitals ..	21
Municipal Special Hospitals ..	1
Maternity Homes	14
Public Assistance Institutions ..	48
Isolation Hospitals	34
Tuberculosis Sanatoria, etc.	20
Convalescent Homes	24
Isolation Hospitals	34

The various services participating in hospital work are all included in the Survey.

There are general observations on the geography and industries of the Region as well as on the structure, administration and general working of the hospitals; the medical liaison between hospitals; the pathological services; the maternity services; the tuberculosis services; the isolation hospitals; the institutions for chronic aged sick; the convalescent homes; and the ambulance services.

The second part of the Report contains the Surveyors' recommendations on the development of the hospital services. Readers of this Report must bear in mind that there are, in all, ten reports covering the ten areas into which the whole of England and Wales is divided. To form a clear picture of the needs of the country the whole ten reports must be studied. It is a waste of time to regard a single report as foreshadowing the Government proposals for a new hospital service. The second part of this report sets forth what, in the opinion of the Surveyors, are the essential needs of the area and to this the Surveyors have added some of the ways of meeting these needs which, in their opinion, might be adopted. At this stage no criticism is called for. Everyone may now inform himself of the state of the hospital services as they exist at present. The facts ascertained by the Surveyors are not likely to be challenged or controverted. It is impossible that other investigators should enjoy similar facilities at the present time for conducting identical enquiries. The public, like the Minister of Health, must take the view that the facts are correctly stated. Moreover, since the Minister and his advisers will not formulate any plans until he and they have digested all the Surveys, the general public will be wise to wait for the proposals of the Minister before expressing any opinions. We must, at any rate, congratulate the Surveyors of the South-Western Area on having completed a magnificent task and having presented their report in a most readable form.

There is a striking conformity of views expressed in the various Surveys, more particularly in the planning of hospitals as satellites revolving about and depending on a main medical teaching centre. This pattern was not dictated by the Ministry of Health, nor by the Nuffield Trust. Evidently it is a pattern which has already begun to take shape and the Surveyors have recognised that it may well be accepted as a sound foundation on which to build.

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Selection of Medical Students.

DR. BODMAN'S suggestions on the Selection of Medical Students are published at the request of the Bristol Study Group and the Committee of the Medico-Chirurgical Society. It is interesting to compare the views of to-day upon the catching

ERNEST WILLIAM HEY GROVES

training and using of doctors with those of Dr. John Brown, the author of *Rab and His Friends*. He wrote (in 1882): "I am more convinced than ever of the futility and worse of the Licensing System, and think with Adam Smith, that a Mediciner should be as free to exercise his gifts as an Architect or Mole-catcher. The Public has its own shrewd way of knowing who should build its house or catch its moles, and it may quite safely be left to take the same line in choosing its doctor. Lawyers, of course, are different, as they have to do with the State—with the law of the land." Up to the present it has not been proposed to place Mole-catchers on a State Register.

Obituary

JOHN DACRE, M.R.C.S., L.R.C.P.

On 30th December, 1944, the death occurred of Dr. John Dacre, who retired some years ago after being for many years a well-known practitioner in Clifton.

Dr. Dacre qualified in 1882, and in 1883 came to Bristol from Leeds Infirmary, where he had held the post of Assistant House Surgeon. In November of the same year he was elected Assistant Resident Medical Officer and Pathologist at Bristol Royal Infirmary. He later held the posts of Junior Resident Officer, House Physician, House Surgeon and Senior Resident Medical Officer.

For some years Dr. Dacre practised in Victoria Square, Clifton, and he became President of Bristol Medico-Chirurgical Society. During the 1914–18 War he served as Captain in the R.A.M.C. (T.) He had been a Consultant to the Children's Hospital.

He was formerly prominently associated with Bristol Medical Dramatic Club and also Clifton Operatic Society. He had a fine bass voice.

He leaves two sons.

ERNEST WILLIAM HEY GROVES, M.S., F.R.C.S.

On 22nd October, 1944, Ernest Hey Groves died at his home in Clifton, Bristol, after a long and distressing illness, and there passed away with him a great English surgeon. He was born at Coonoor on the Nilgiri Hills in India on 20th June, 1872, the son of Edward Kennaway Groves, a Civil Engineer. When his father retired he settled in Bristol, bringing home with him his 3-year-old son. The boy had a will of his own, for it is related that on the steamer, finding his shoes too tight and pinching his feet he took them off and flung them overboard. He went to school at Redland Hill House, Bristol. Thence he gained an entrance scholarship at St. Bartholomew's Hospital, London, where he obtained the B.Sc. (London) in 1890, and qualified M.R.C.S., L.R.C.P., in 1895,

taking the M.B. (London) in 1897 and the M.D. in 1900. He held the post of resident accoucheur at " Barts " under Sir Francis Champneys before entering upon general practice. He went first as assistant in various parts of the country and then settled into practice on his own account at Kingswood, Bristol. Here he performed many major surgical operations on private patients in his own house, where his wife assisted in the theatre and nursed the patients. Mrs. Hey Groves (*née* Frederica M. L. Anderson) had been a sister at " Barts " whom he married in 1896, and his success in establishing a reputation as an operating surgeon, whilst in general practice in the outskirts of Bristol, was in no small measure due to her competent help and encouragement. When, in 1903, a vacancy occurred on the surgical staff of the Bristol General Hospital, Hey Groves was invited to become Assistant Surgeon, an almost unprecedented recognition of the surgical attainments of a G.P. But by this time Groves had attained high academic honours, having taken the B.S. degree with honours in 1904, the M.S. with Gold Medal in 1905, and the F.R.C.S. in 1905—a remarkable record for a man engaged in busy practice. The judgement of the election committee of the Bristol General Hospital was amply justified by his previous record and still more so by his subsequent performance. Before long he had turned his attention to bone-surgery and became one of the pioneers in bone-grafting. His judgement was sound, his technique admirable. No one could be bolder when boldness was required, yet he could be as cautiously conservative as anyone upon occasions. In the War of 1914–18 he took a commission in the R.A.M.C. (T.F.) and went to Egypt in charge of the Surgical Division of a General Hospital during 1915–16. On returning to England he was attached as surgeon to the Beaufort War Hospital, Bristol. His friendship with and admiration for Sir Robert Jones were cemented by their common interest in orthopædic surgery. In was in orthopædic surgery that his reputation became world-wide. In 1935 he travelled to Australia for the B.M.A. Meeting, where he was President of the Orthopædic Section and was honoured by being made a Fellow of the Royal Australian College of Surgeons. In 1928–29 he was President of the British Orthopædic Association. At the Royal College of Surgeons of England he achieved notable recognition. He was Hunterian Professor in 1914, Jacksonian Prizeman in 1917, Arris and Gale Lecturer in 1917, Bradshaw Lecturer in 1926 and Hunterian Orator in 1930. He was a member of Council for twenty-three years and became a Vice-President of the College.

Perhaps one of his greatest triumphs was the making of the *British Journal of Surgery*. The germ of the idea in 1913 was his, though it was fostered from the beginning by the late Lord Moynihan. Here is an appreciation of his work as Editorial Secretary of the *Journal* from a former member of the publishing staff : " It was my good fortune to act as Secretary to Mr. Hey Groves for nearly twenty-five years in his work with the *British Journal of Surgery*. An Editor's task is not an enviable one, but it would have been hard to find anyone more energetic and understanding as the Editor of that *Journal* which he founded in 1913, and which owes its present high position in the surgical world very largely to his industry and far-sighted policy. His kindly criticism of articles sent in for publication, his helpful letters to young surgeons

submitting perhaps for the first time, articles regarding the arrangement of which they were rather dubious, his advice about illustrative values, were all typical of his sincere resolve to maintain in surgical journalism the very highest standard. He was ever on the watch for articles dealing with 'everyday' surgery, and long tedious tables of statistics did not greatly impress him. His search for "Critical Reviews" of such subjects as Tumours of the Lung, Surgery of the Sympathetic Nervous System, etc., brought in articles which have since been invaluable to research workers. He looked forward eagerly to the monthly meetings of the Editorial Committee which were held in the Examiners' Room of the Royal College of Surgeons (the very room in which the idea of the *B.J.S.* was born), his mind ever ready to answer any question 'arising out of the Minutes' or to accept suggestions for the betterment of the *Journal*. The presentation to him in October, 1933, of a beaten silver salver (the work of Omar Ramsden) was a symbol of the gratitude and affection which the Editorial Committee and subscribers felt for him, and he prized both the gift and the spirit behind the gift, very highly. Lord Moynihan, in making the gift, said: 'This presentation is made to you on behalf of a number of subscribers to the *British Journal of Surgery* in recognition of your invaluable services during twenty years as Editorial Secretary. We offer you this salver and cheque as a tribute to your efficiency and devotion. You were one of those in whose mind was conceived the idea of founding in this country a journal worthy of the contributions to the Art and Science of Surgery which England and the British Empire were making. Difficulties were many, and opposition and indifference were found in high places. . . . In earliest days and throughout twenty years, with the exception of one year when you served in the Army overseas, our activities centred round you. All our plans, all our ambitions, all our efforts, found in you a most willing, most competent, and tireless worker. Your industry, your wise judgement, your enthusiasm and unwearying tact, have been of value beyond reckoning in maintaining year after year our corporate efforts. . . . To-day and by our simple gift we seek with our affection to assure you of our cordial recognition of your invaluable help.'"

In Bristol Groves was Professor of Surgery for ten years from 1922 to 1932, and his work was recognized by the University when the degree D.Sc. *honoria causa* was conferred upon him at the Centenary of the Bristol Medical School in 1933. Belfast, too, made him an Honorary LL.D. When he first became Professor he started clinical rounds in alternate weeks at the Hospital and the Infirmary, for he found the two institutions in something like opposition and rivalry, with the Infirmary students knowing nothing of the Hospital and vice versa. But beyond these public endeavours to promote harmony and co-operation, one who worked with him for eighteen years writes: "Possibly I know of some of his generous actions that few others are aware of. At least two successful medical men were enabled to complete their medical studies which otherwise they would, owing to financial difficulties, have had to abandon. He found out about their circumstances and paid the rest of their fees. Incidents he used to tell me about his own student days help to show the tenacity of purpose he had.

He won a scholarship for " Barts," and was sent to London to live with an uncle who resided at the far end of Hampstead. His uncle kept him, but did not allow him any pocket money. He had no money from home and so he used to get hold of an odd arm or leg from the Dissecting Room and smuggle it back to Hampstead, and in the basement by the light of candles, give grinds to younger students for a few shillings, but often he said there was a ' free ' list for these grinds as well. Someone had to hold the door, for if they had been found out, they would have been sunk. Another incident was when a London surgeon asked him if he had ever seen London in the dawn, or before dawn broke, Mr. Groves said, ' I know the dawn in London as well as any surgeon you could name, I expect.' He said he was a devotee of Gladstone, and when he could he used to get into the House of Commons and listen all night to the Home Rule Bill, then walk back to Hampstead at 4 a.m., because, of course, there was no transport available at this time and he had no money for cabs. He said he did this many times. I cannot think of many modern students who would walk four to five miles in the chill of dawn to hear even Winston Churchill."

He was a prolific writer in the Journals and had published his well-known *Synopsis of Surgery*, also *Surgical Operations for Students and Nurses*, *Fractures*, and with Fortescue-Brickdale *A Textbook for Nurses*. His recreations were golf, swimming, motoring and travel. How he loved travel, and what a companion he was ! Not the least of the attractions for him was the Moynihan Chirurgical Club. He called his travels " Busman's holiday," but it was not only to study surgery and surgeons in new places that he loved travelling. The novelty of other towns and other lands enthralled him. He was a dependable colleague, a cheery and delightful travelling companion and a grand friend. To his widow who survives him we offer our deep sympathy. *Requiescat in pace.*

CECIL AUGUSTUS JOLL, M.D., B.S., B.Sc., F.R.C.S.

A BRISTOL-BORN surgeon with an international reputation has recently passed away in Mr. Cecil Augustus Joll. He was a son of the late Mr. W. F. Joll, dentist, who practised in Bristol for many years.

Educated at University College, Bristol, University College Hospital, London, and London Hospital, and also in Paris. He took the M.B., B.S. (London) degrees with honours in medicine, surgery, pathology and forensic medicine, and hygiene, and won a gold medal. He was also M.D., B.Sc. (Bristol), B.Sc. (London), and F.R.C.S.

He was Senior Surgeon to the Royal Free Hospital, London, and Lecturer on Surgery ; Senior Surgeon to the Miller Hospital, Senior Surgeon to the Royal Cancer Hospital, and Hunterian Professor, Royal College of Surgeons, 1923 and 1939.

Mr. Joll wrote numerous books and articles on medical and surgical subjects.

He leaves a widow, a son, and a daughter.

LEONARD NEWSOM MORRIS, M.B., Ch.B., F.R.C.S., M.R.C.S., L.R.C.P.

THE death occurred on 28th December of Mr. Leonard Newsom Morris. He studied at Bristol Medical School and became F.R.C.S. (Edin.), M.R.C.S., L.R.C.P. (London), and M.B., Ch.B. (Bristol), and was for a time house surgeon and house physician at Bristol General Hospital, and later became one of the senior (in-patient) surgeons at Bristol Children's Hospital.

He died within a few hours of the death of his wife, and leaves no children.

NORMAN LLOYD PRICE, M.D., M.R.C.P.

THE medical profession in Bristol has suffered a severe loss in the death, at the age of 38, of one of its younger and most able physicians, Dr. Norman Lloyd Price, M.D., M.R.C.P. Second son of the late Rev. W. W. Price, former Minister of Westbury Park Methodist Church, he graduated at Bristol University, where he took his M.B.

For some years he was Deputy M.O. at Southmead Hospital, his tenure covering the early days of the war, when he did valuable work during the blitz period under the Emergency Medical Services scheme. Subsequently he became Honorary Physician at the Children's Hospital, after which he entered private practice, specialising as a consultant for children. He was also a voluntary consultant at Bristol Dispensary, Redcross Street.

At all the institutions with which he was connected he was popular alike with the staff and the patients, who greatly appreciated his consideration and kindliness.

He enjoyed a game of golf, and with a longish handicap on one occasion won the Corporation Staff Cup at Failand.

His death followed an illness lasting 21 years. He leaves a widow, to whom we offer our sympathy.

CHARLES FERRIER WALTERS, F.R.C.S.

ON 24th December, 1944, Mr. C. Ferrier Walters died in Bristol after an illness which had lasted several months. He was at the time of his death Honorary Consulting Surgeon to the Bristol Royal Hospital and Group Officer to the Bristol Area under the Ministry of Health E.M.S. Scheme. Mr. Walters was born on 26th December, 1874, the son of Thomas Walters, Chartered Accountant. He was educated at Burton College, where his uncle, Rev. Dr. Ferrier, was headmaster. On leaving school he was for a short time apprenticed to a dental surgeon in Park Street, Bristol. But he soon changed his mind and entered the Medical School of University College, Bristol. His Clinical work was done at the Bristol Royal Infirmary and he qualified M.R.C.S., L.R.C.P. in 1900, having passed the first F.R.C.S. examination. After holding resident posts at the Bristol Royal Infirmary, he passed the Final Examination and obtained the F.R.C.S. in 1904.

Mr. Walters was appointed Assistant Surgeon at the Bristol Royal Infirmary in 1909, and Surgeon in 1915, rapidly becoming one of our busiest surgeons. In 1929 he was President of our Society, choosing as his subject for the Presidential Address "The Duty of Medicine to the Race." He was President of the Bath, Bristol and Somerset Branch of the British Medical Association in 1932–33.

DAVID CHARLES RAYNER, CH.M., F.R.C.S.

DAVID CHARLES RAYNER, a former president of the Medical Chirurgical Society, died in a Clifton Nursing Home on the 21st October, 1945.

He was a student of the Bristol Medical School, qualifying M.R.C.S., L.R.C.P., in 1892. He obtained the F.R.C.S. in 1896, became an original Fellow of the Royal College of Obstetricians and Gynæcologists in 1929, and received the Ch.M. degree from Bristol University in 1930. For a time he worked in the Physiological Department of the old University College in Bristol and from the outset of his professional career he specialized in Obstetrics and Gynæcology.

In 1897 he was elected to the staff of the Bristol General Hospital as Assistant Physician Accoucheur, an appointment he held for twenty-six years. It was during this period that he built up a large obstetrical and gynæcological practice in Bristol and district, where, by his industry, personal kindliness and charm, he established himself in the hearts of thousands of patients, and by his keenness and sound clinical teaching in the minds of countless medical students and pupil midwives. These nurses have special reason to remember his kindness and helpfulness, both as a teacher and as an examiner for the Central Midwives Board.

In the war of 1914–18 he worked on the staff of the Beaufort War Hospital at Fishponds, Bristol.

In 1929 he became Senior Obstetrician to the Bristol General Hospital under the title of Obstetric Physician and Gynæcologist. The nest step was in 1925, when the University of Bristol appointed him Director of Clinical Obstetrics, whilst a year later he became Professor of Obstetrics. During the session 1930–31, he was President of the Medical Chirurgical Society. In 1932 he was made Emeritus Professor of Obstetrics in recognition of his devoted service to the University and to his speciality.

He continued his private work, but in 1935, after a severe illness which necessitated the amputation of his right leg, his activities were naturally decreased. Even so, he remained willing to help whenever he could, and during the second World War he gave assistance by teaching and examining for the Central Midwives Board.

For many years he was a member of the Gynæcological Visiting Society, rarely missing a meeting, and paying visits to many teaching centres in Great Britain and on the Continent.

At the Annual Meeting of the British Medical Association held at Bath in 1925, he served as Vice-President of the Section of Obstetrics and Gynæcology, and continued his membership of the British Medical Association from 1894 until the time of his death, a period of continuous membership that can seldom have been exceeded.

To achieve a nickname has often been regarded as the hallmark of greatness and personality, and to former students and nurses of the Bristol General Hospital, Rayner was always known affectionately as "Charlie." Every one wondered how he sustained such a constant strain night and day over so many years, yet always appeared kindly and courteous, never ruffled or irritable. There is evidence to show that he had the "gift of sleep," and could refresh himself by odd hours snatched between appointments in his busy practice. In his lighter moments he derived great pleasure from his membership of the Bristol Medical Reading Society, to which he was elected as far back as the 3rd January, 1912. He seldom missed a meeting in those thirty-three years and was its secretary on two occasions, in 1913 and 1928.

His repution throughout Bristol and the West Country was founded upon hard work, willingly undertaken and conscientiously performed. His diffident, shy manner was no pose, his modest bearing represented the human kindliness of his generation. Generous to a fault in all his dealings, it is little wonder that his patients had implicit faith in his ability and experience. One whose name was for so long a household word in this city has passed and we, who were privileged to know and work under him, mourn the loss of a great gentleman whose long life of notable service will always be remembered.

Meetings of Societies

Bristol Medico-Chirurgical Society

THE Bristol Medico-Chirurgical Society has re-started its activities. The President (Dr. H. H. Carleton) gave his inaugural address, "Science and Nature," at the October Meeting.

The November Meeting was devoted to a discussion on the "Modern Management of Chronic Gastric and Duodenal Ulceration." The opening speech was by Mr. Norman Tanner, of London. Many members of a very large audience took part in the ensuing discussion.

The December Meeting, a Clinical one, has had to be re-arranged for 9th January, at 8 p.m., in the Out-Patient Department of the Royal Infirmary branch of the Royal Hospital.

From 1st January, 1946, Mr. Eyre Brook takes over the secretaryship from Mr. R. V. Cooke. The next Treasurer is Dr. Sutton, who takes over from Mr. Iles.

The Medical Library of the University of Bristol

WITH WHICH IS INCORPORATED

The Library of the Bristol Medico-Chirurgical Society

The following donations have been received since the publication of the list in the last issue.

General Medical Council (1)	3	volumes
Miche Clarke Fund (2)	19	,,
Professor C. Bruce Perry (3)	2	,,
Royal College of Surgeons (4)	1	,,
Royal Institute of Public Health and Hygiene (5)..	1	,,
J. E. Shaw Fund (6)	3	,,
Miss M. C. Shaw (7)	2	,,
Dr. Kornel Terplan (per Professor Hewer) (8) ..	1	,,
University of Otago Medical School (9)	1	,,
Captain Richards (10)	10	,,

Unbound periodicals have also been received from Dr. S. B. Adams, Mrs. Hey Groves, Dr. T. Milling, Professor C. Bruce Perry, Dr. J. Odery Symes, U.S. Army Medical Corps, Messrs. John Wright & Sons, Ltd.

THE ONE HUNDRED AND SEVENTY-NINTH LIST OF BOOKS.

The figures in round brackets refer to the figures after the names of the donors. The books to which no such figures have been attached have either been bought from the Library Fund or received through the *Journal*.

Bailey, Hamilton .. *Demonstrations of Physical Signs in Clinical Surgery* .. .. 9th Ed. 1944

Bailey, Hamilton, and Bishop, W. J. ..*Notable names in Medicine and Surgery* 1944

Bailey, Hamilton (Ed.) *Pye's Surgical Handicraft* .. .. .. 14th Ed. 1944

Bailey, Hamilton (Ed.) *Surgery of Modern Warfare*, 3rd Ed., 2 vols. (2) 1944

Beaumont, G. C. and Dodds, E. C. *Recent Advances in Medicine*, 11th Ed. (2) 1944

Best, C. H., and Taylor, N. B.	*Physiological basis of Medical Practice*	3rd Ed. (2)	1943
Blacker, C. P.	*Notes for the R.M.O. of an Infantry Unit*		1944
Bloor, W. R.	*Biochemistry of the Fatty Acids and their Compounds, the Lipids*	(2)	1944
Boyd, W.	*A Textbook of Pathology*	4th Ed. (2)	1943
Broadbridge, H. G.	*Murrell's What to do in Cases of Poisoning*		
Bunnell, Sterling	*Surgery of the Hand*	(6)	1945
Burroughs, G. F.	*A Narrative of the Retreat of the British Army from Burgos*		1814
	Calendar of the Royal College of Surgeons of England	(4)	1944
Cecil, R. L. (Ed.)	*A Textbook of Medicine*	6th Ed. (2)	1944
Cole, F. J.	*History of Comparative Anatomy*		1944
	Collected Papers of the Mayo Clinic, Vols. XXXIII—XXXV.		
Coope, R.	*Diseases of the Chest*	(2)	1945
Crawford, A. M.	*Materia Medica for Nurses*	5th Ed.	1942
Currie, J. R. and Mearns, A. G.	*Hygiene*	2nd Ed. (3)	1945
Dible, J. H., and Daire, T. B.	*Pathology*	2nd Ed. (2)	1945
Dilling, W. J.	*The Pharinacology and Therapeutics of the Materia Medica*	18th Ed. (2)	1944
Durbeck, W. E.	*The Impacted Lower Third Molar*	(2)	1943
Fish, E. W.	*Paradontal Disease*	(2)	1944
Fisher, A. G. T.	*Treatment by Manipulation*	(2)	1944
Fulton, J. F.	*Physiology of the Nervous System*	2nd Ed. (2)	1943
Gaddum, J. H.	*Pharmacology*	2nd Ed.	1944
Gould, G. M.	*Gould's Medical Dictionary*	5th Ed.	1943
Gunn, J. A.	*Intro. to Pharmacology and Therapeutics*, 7th Ed.		1944
Harding, A. S.	*A History of the Institute of Hygiene*	(5)	1944
Illingworth and Dick	*Textbook of Surgical Pathology*	3rd Ed. (10)	1944
Love, R. J. McNeill	*A Guide to the Surgical Paper with questions and Answers*	2nd Ed.	1944
Mellor, J. W.	*Modern Inorganic Chemistry*	9th Ed. (7)	1944
Minnitt, R. J. and Gillies, J.	*Textbook of Anaesthesia*	6th Ed.	1945
Moore	*Textbook of Pathology*		1945
Pannett, C. A.	*Surgery*	(2)	1944
Quick, A. J.	*The Haemorrhagic Diseases and the Physiology of Haemostasis*	(2)	1942
Rolleston, J. D. (Ed.)	*British Encyclopædia of Medical Practice* :—		
	(*a*) *Cumulative Supplement*	(6)	1945
	(*b*) *Medical Progress*	(6)	1945
Roxburgh, A. C.	*Common Skin Diseases*	7th Ed.	1944
Sairll, T. D.	*System of Clinical Medicine*	12th Ed. (2)	1945
Schmeidler, C.	*Historical Survey of Pharmacy in Great Britain* (3)		c1939
Starling	*Principles of Human Physiology*	9th Ed.	1945

Stead, G.	*Elementary Physics*	6th Ed. (7)	1942
Stockard, C. R. et al	*The Genetic and Endocrinic Basis for Differences in Form and Behaviour*		1941
Studies of Burns and Scalds (M.R.C. Special Report 249)			1944
Terplan, Kornel	*Anatomical Studies on Human Tuberculosis*	(8)	1940
Tidy, H. L.	*Synopsis of Medicine*	8th Ed.	1945
Tobias, N.	*Essentials of Dermatology*	2nd Ed.	1941
Tylman, S. D.	*Theory and Practice of Crown and Bridge Prothesis*	(2)	1941
Vedder	*Medical Aspects of Chemical Warfare*	(2)	1944
Waller, H.	*Clinical Studies in Lactation*	(2)	1938
Wampler, F. J.	*Principals and Practice of Industrial Medicine*	(2)	1943
Wheeler, R. C.	*Dental Anatomy and Physiology*	(2)	1944
Wolff, E.	*Diseases of the Eye*	Ed. 2	1942
Woodger, J. H.	*Elementary Morphology and Physiology*	3rd Ed.	1943
Young, J. H.	*Caesarean Section*		1944

TRANSACTIONS, REPORTS, JOURNALS, ETC.

Annual Report of the Smithsonian Institute, 1943

British Journal of Industrial Medicine Vol. I

Cancer Research Vol. I

Dentists Register, 1945 (1)

Hospitals Year Book, 1943—1944

Medical Annual, 1944

Medical Directory, 1945

Medical Register, 1945 (1)

Quarterly Cumulative Index Medicus, Vols. 35, 36, 1944

Proceedings University of Otago Medical School, No. 22, 1945 (9)

Report of the Inter-Departmental Committee on Medical Schools (Goodenough Report), 1944

Transactions of the Ophthalmological Society of the United Kingdom, Vol. LXIII, 1944

Publications Received

From GENERAL MEDICAL COUNCIL:

Seventh Addendum to the British Pharmacopoeia, 1932.

From WILLIAM HEINEMANN MEDICAL BOOKS LTD.:

Outlines of Physical Methods in Medicine. By G. D. KERSLEY, 1945. Price 6s.

The Rheumatic Diseases. By G. D. KERSLEY, M.D., and SIR FRANCIS FRASER, M.D. Second Edition, 1945. Price 15s.

From INSTITUTE FOR SCIENTIFIC TREATMENT OF DELINQUENCY:

Psycho-pathology of Prostitution. By E. GLOVER, 1945. Price 1s.

From MESSRS. H. K. LEWIS & CO. LTD.

Cookery Book for Diabetics. Issued by THE DIABETIC ASSOCIATION, 1945. Price 4s.

The Infant—a Handbook of Management. By W. J. PEARSON AND A. G. WATKINS, 1945. Price 4s.

From OXFORD UNIVERSITY PRESS:

A Textbook of Psychiatry. By HENDERSON AND R. G. GILLESPIE. Sixth Edition, 1944. Price 25s.

Industrial Toxicology (*Croonian Lecture*, 1942). By DONALD HUNTER, M.D., F.R.C.P., 1944. Price 10s.

From MESSRS. T. J. SMITH AND NEPHEW LTD.:

Cellona Technique, 1945.

From MESSRS. JOHN WRIGHT & SONS LTD.:

Do you want to be a Nurse? By E. DRYBROUGH-SMITH, 1945. Price 1s.

Index of Differential Diagnosis of Main Symptoms. By HERBERT FRENCH, M.D., F.R.C.P. Sixth Edition, 1945. Price 84s.

Elements of Medical Treatment. By SIR ROBERT HUTCHISON, M.D., F.R.C.P, Fourth Edition, 1945. Price 10s. 6d.

Synopsis of Forensic Medicine and Toxicology. By E. W. CARYL THOMAS, M.D. Second Edition, 1945. 10s.

Groves' Synopsis of Surgery. Edited by C. P. G. WAKELEY, F.R.C.S. Twelfth Edition, 1945. 25s.

British Journal of Surgery. Vol. XXXIII., No. 130, October, 1945.

Local Medical Notes

The Edward Fawcett Memorial Prize and the Foyle Prize have both been awarded for 1945 to Mr. A. H. Levy.

The Hewer Pathological Prize for 1945 has been awarded to Mr. A. C. Edwards.

EXAMINATION RESULTS.

University of Bristol.—Students of the University have recently passed the following examinations :—

M.B., CH.B.—*First Examination :* P. B. Bailey, Monica B. Bishop, H. J. Bland, S. H. Brown, Judith A. V. Davis, Dorothy R. Douglas, B. R. W. Evans, H. Haig, L. Harbin, Pamela J. Harris, Monica C. Haynes, R. Hill, P. M. Hunter, J. A. Jefferies, Megan D. M. Johnson, Helena B. Knottova, G. W. B. Peel, Barbara M. Philpott, G. A. Pilkington, J. F. Rowland, Rachel D. R. Sasieni, Mildred M. C. Shaw, L. P. Spence, D. T. I. Stuttaford, M. D. Turner, D. W. Wright, M. A. Feldman, H. I. Leigh, Hella R. Sadler, Joan H. Barnes, Ann H. Davies, R. D. Doyle, C. C. Ewing, Elizabeth M. Fraser, G. C. K. Herapath, Marianne A. Taylor, Joan Walker. *In Organic Chemistry :* Rosalind P. Adams, R. M. Barnes, Jennifer M. Comely, Margaret J. Francis, Sybil Jacob, J. D. Sheward, June M. Smith, Margaret A. Tubbs.

M.B., CH.B.—*Second Examination :* Barbara Brosnan, R. J. Carey, Suzanne K. R. Clarke, Anne Cousins, H. M. Dowling, C. C. Downie, D. N. Fitzgerald, Molly I. Govier, B. T. Hale, Pamela I. Hannaford, Kathleen J. Harrison, A. J. Lee, C. D. Linton, D. B. Peacock, Elizabeth Preston-Thomas, Jenny Pym, G. T. Salter, P. J. Speller, A. S. Wallace, M. P. Walker. (*Section I*) : Diana F. J. Duncan, Margaret Ford, Anne M. French, G. A. Hanks, Ruth E. Hazell, Joan A. Higginbottom, A. H. Levy, June Morgan, N. Sartori, B. F. Vaughan, Pamela L. C. Watson, Audrey M. Wells, R. H. Wood. (*Section II*) : Margaret J. Andrews, N. M. Gibbs, A. H. Laxton, J. S. R. R. Old, F. A. A. Ruggeri, G. D. Teague.

M.B., CH.B.—*Final Examination* (*Section I*) : Grace V. Andrew, J. A. Ardis, W. E. Arnold, Kathleen Blott, Dorothy J. Blake, D. E. Bolt, Elizabeth Bryant, W. H. K. Carpenter, N. J. Cook, Margaret J. Cox, R. W. Drewer, (Mrs.) M. M. Fairband, Sheila E. Fraser, F. D. Kay, M. B. Lennard, (Mrs.) E. E. Napthine, J. H. K. Parker, Hazel M. Passmore, H. S. Paull, C. D. R. Pengelly, Dorothy E. M. Pierce, D. Purnell, Dorothy M. Reece, R. H. Scott, A. D. Stewart, T. Stratton.

Jean Tregear, (Mrs.) P. M. Valentine, Andre D. Verniquet, K. D. J. Vowles, Pamela Westhead, Kathleen G. Wright. *(Section II):* J. A. Ardis, J. B. Brierley (1), Roma N. Chamberlain, W. P. Foster, (Mrs.) S. Gordon, Irene D. R. Gregory, A. W. Heaton-Ward, D. H. Johnson (1), (Mrs.) E. E. Napthine, W. Oldham, E. S. Short, Barbara F. Smith, Doris G. Virgo (1). *In Group I:* M. J. Cook, A. C. Edwards, J. R. Hawkings, R. A. J. Pearce, S. A. K. Stokes. *In Group II:* (Mrs.) I. M. M. Codd, (Mrs.) J. R. Oakes.†

M.B., CH.B.—*Final Examination:* M. Alms, Grace V. Andrews, R. W. Drewer, E. W. Emery, Margaret Lamb, Edith J. Lowick, J. D. Medhurst, Ruth M. Rocke. *In Group II:* N. J. Cook,†, A. C. Edwards,† J. G. R. Ellis, J. R. Hawkings,† R. A. J. Pearce,† S. A. K. Stokes.†

B.D.S.—*First Examination:* Claire Ascott, H. Maxwell, L. A. D. Tovey. *Supplementary:* D. Clifford, E. Farwell, P. P. Griffiths, L. M. Lloyd, A. R. Owen.

B.D.S.—*Second Examination:* A. J. P. Cousins, L. M. Lloyd, A. R. Owen, L. K. Walden.

B.D.S.—*Third Examination:* R. J. Brownlee, L. K. Walden. *In Dental Mechanics:* A. J. P. Cousins. *In Dental Mechanics, etc.:* P. J. Blyth,† W. Watson.†

B.D.S.—*Final Examination.—In Section I only:* J. M. Allen, G. A. J. Comyns (2, 3), A. N. R. Gibson, D. C. Sara, A. F. J. Smith (2). *In Section II (Dental Surgery):* H. L. Leech,† I. A. Morgan,† Evelyn M. Pitt.†

L.D.S.—*First Examination:* J. T. Sanders. *Supplementary:* J. P. B. Pengelly.

L.D.S.—*Second Examination:* M. J. Bartlett, J. C. Fishpool, T. C. Hughes, Margaret J. Webb.

L.D.S.—*Third Examination:* J. C. Fishpool, T. C. Hughes.

L.D.S.—*Final Examination.—In Section I:* B. L. Evans, J. C. Nicholas, (Mrs.) M. P. Wood, J. F. V. Woolley. *In Section II:* T. W. Beer,† K. W. Bowrey,†, A. R. Brook,† C. Gibbs,† Eileen Rich,† L. H. Valentine,† J. F. V. Woolley.†

University of Cambridge.—M.B., CH.B.—*Final Examination:* J. M. Drew, G. H. Seale. *Part II:* J. H. E. Bergin,† W. R. Cole.†

University of London.—M.B., B.S.—*Final Examination:* Susanna Gordon.

Royal College of Physicians.—M.R.C.P.—J. F. Ackroyd.

Royal College of Surgeons.—F.R.C.S.—F. R. Hurford, P. B. Ryan.

Royal College of Surgeons of Edinburgh.—F.R.C.S. (Edin.).—D. C. Bodenham.

† Completing Examination.

Royal College of Obstetrics and Gynaecology.—M.R.C.O.G.—Dorothy-M. Shotton, Dorothy J. Thompson.

Conjoint Board.—M.R.C.S., L.R.C.P.—J. A. Ardis (4, 6), J. H. Beatson (5), J. B. Brierley (4, 7, 8), Jyotikana Datta† (7, 8), J. M. Drew† (6, 7), J. G. R. Ellis† (4, 6, 7, 8), Pamela M. Farmer (5), B. L. Finzel† (7), W. P. Foster† (4, 6, 7, 8), R. G. Glen (5), B. T. Hale (9), J. R. Hawkins† (4, 6, 7, 8), Ruth E. Hazell (9), F. D. Kay (4, 6), J. D. Medhurst (4, 6, 7), Jean Musgrave (10), R. A. J. Pearce† (4, 6, 7, 8), G. H. Seale† (4, 6), W. Wagland (5).

L.D.S., R.C.S.—J. R. V. B. Gibson, G. E. Johns.

† Completing Examination.
(1) With Distinction in Forensic Medicine.
(2) With Distinction in Surgery.
(3) With Distinction in Pathology.
(4) Pathology.
(5) Pharmacy.
(6) Medicine.
(7) Surgery.
(8) Obstetrics.
(9) Anatomy.
(10) Physiology.

HONOURS.

D.S.O.—Lieut.-Colonel M. E. M. Herford, M.B., Ch.B., R.A.M.C.

C.B.E.—Brigadier G. S. Parkinson, D.S.O., R.A.M.C.

O.B.E.—Major A. E. Jowett, M.B., Ch.B., R.A.M.C.

Mentioned in Despatches.—Major-Gen. Sir Percy S. Tomlinson, K.C.B., D.S.O., A.M.S. Captain N. C. Coombes, R.A.M.C.

Bar to Military Cross.—Major P. K. Jenkins, M.C., M.B., Ch.B., R.A.M.C.

M.C.—Captain E. W. Moore, R.A.M.C.

D.F.C.—Flight-Lieutenant F. G. Daw, R.A.F.

ROLL OF HONOUR.

Killed in Action.—Sergt. J. A. Bentz, R.A.F., Sergt. M. G. Wood, R.A.F., Lieutenant A. R. B. McGillycuddy, S.L.I.

Wounded.—Major P. K. Jenkins, M.B., Ch.B., R.A.M.C., Captain C. J. R. Jacob, R.A.M.C., Captain E. W. Moore, R.A.M.C., Lieut. T. R. Stephens, R.A.M.C.

Bristol Eye Dispensary.—The Committee of the Bristol Eye Dispensary have arranged that patients may be seen by appointment. Application should be, if possible, by letter. Addressed "Appointments," Eye Dispensary, 17 Orchard Street, Bristol 1.

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Medical Practitioners wishing to join the Society are requested to communicate with the Hon. Secretary, Mr. A. L. EYRE-BROOK, Litfield House, Clifton Down, Bristol 8, The Annual Subscription is £1 1s., payable to Hon. Treasurer.

Extracts from Journal By-laws.

4.—The *Journal* shall be delivered free to Subscribers and also to Members of the Society whose subscriptions are not in arrear.

6.—The Annual Subscription to the *Journal* is 9/–, payable to Hon. Treasurer.

Communications intended for insertion in the *Journal* should be sent to the Editor, Dr. J. A. NIXON, 7 Lansdown Place, Clifton, Bristol.

Books for Review and Exchange Journals should be sent to the Assistant Editor, *Bristol Medico-Chirurgical Journal*, Medical Library, The University, Bristol. Reviews should be returned with the books to Mr. E. WATSON-WILLIAMS, 65 Pembroke Road, Bristol 8.

Communications referring to the delivery of the *Journal* should be sent to the Hon. Treasurer, Dr. FREDERICK SUTTON, 1 Pembroke Road, Bristol 8.

Volumes of the *Journal* can be bound upon application to J. W. ARROWSMITH LTD., Quay Street, Bristol, price on request. The inclusive Index for Volumes I—LI may be obtained, price 3/– (postage extra).

Bristol Medico-Chirurgical Society

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*ROBERTSON, L. G., M.B., Ch.B. .. .. .. 162 Redland Road, Bristol 6.
*ROGERS, H., M.D. Brist. .. .. 91 Old Park Ridings, Grange Park, N.21.
*ROLFE, R., B.A., M.B., B.C. Cantab. .. .. Park House, St. Andrew's Road, Avonmouth.
*ROWLANDS, R. D. .. .. Connaught Military Hospital, Knaphill, Surrey.
*ROWLEY, A. T. .. .. 13 Walliscote Road, Weston-super-Mare.
*RUDOLF, MAJOR G. DE M. .. .. Seawalls, Clevedon.
*RYAN, P. B., M.B., Ch.B. .. .. The Paddock, Frenchay.

*SAMPSON, O. E. L., M.B., Ch.B. Brist. .. .. 77 Stackpool Road, Bristol 3.
*SCARFF, G., M.B., Ch.B. Edin. .. .. 83 Pembroke Road, Clifton, Bristol 8.
*SHEPHERD, H. L., M.B., Ch.M. Brist. .. .. 79 Pembroke Road, Clifton, Bristol 8.
*SHORE, T. L. H., M.A., M.B., B.Ch. .. .. Linden Lodge, Holmes Hill, Taunton.
*SHORT, A. R., F.R.C.S., M.D. Lond. .. .. .. 69 Pembroke Road, Clifton, Bristol 8.
*SIMPSON, T. E, N. .. .. "West Hythe," Old Patchway, Bristol.
*SMYTHE, H. J. D., *M.C.*, M.D., M.S. Lond. On Active Service.
*SNAWDON, J. W. E., M.B., Ch.B., B.D.S. .. .. Litfield House, Clifton, Bristol 8.
*SOLTAU, H. K. V., M.D. Lond. .. .. .. 19 The Avenue, Clifton, Bristol 8.
*SOMERS, MARY A. E. .. .. 2 Ashcombe Road, Weston-super-Mare.
*SPARKS, J. V., ... The Middle House, Felton.
*SPOOR, A., M.B., Ch.B. Cantab. .. .. .. The Hydro, Bristol 1.
*STEPHEN, R. J. .. .. 92 Redland Road, Bristol 6.
*STROVER, H. W. M., *O.B.E.*, M.B., Ch.B. Aberd. 90 Redland Road, Bristol 6.
*STRUTHERS, A. J., M.B., Ch.B. Glasg. .. .. 100 Church Road, Redfield, Bristol 5.
STRUTHERS, GEO., M.B., Ch.B. Glasgow .. .. 100 Church Road, Bristol 5.
*SUTTON, G. E. F., M.D. Lond. .. .. 1 Pembroke Road, Clifton, Bristol 8.
*SYMES, J. O., M.D. Lond. .. .. 6 Pembroke Vale, Clifton, Bristol 8.

*TALLACK, MAJOR R. J. K., R.A.M.C. .. .. (Kenya) Field Amb., A.P.O., E.A. Command.
*TASKER, D. G. C., M.B., M.S. Lond. .. .. 9 College Fields, Clifton, Bristol 8.
*TAYLOR, A. L., M.D. Lond. .. .. The General Hospital, Bristol 1.

TAYLOR, A. L.	The Royal Infirmary Bristol 2.
THIN, J.	54 and 55 South Bridge, Edinburgh.
*TODD, A. T., *O.B.E.*, M.D. Edin.	Royal Park House, Clifton, Bristol 8.
*TRIBE, DR. M. N., M.B., Ch.B.	Ding's House, St. Philips, Bristol 2.
TRINICK, RICHARD H.	42 Cherry Valley Gardens, Belfast.
TRIPP, DOROTHY M. H.	Mission Hospital, Karim Nagar, Nizam's Dominions, South India.
*TRYON, VICTORIA S., M.B., Ch.B. Brist. ..	3 Harley Place, Clifton, Bristol 8
*WAGSTAFFE, E. M., M.B., Ch.B.	Winford Orthopædic Hospital.
*WANSBROUGH, T. B., M.B., Ch.B. Brist. ..	23 Pembroke Road, Clifton, Bristol 8.
*WALKER, CYRIL H., B.A., M.B. Cantab. ..	Harewood, Clapton-in-Gordano, Som.
WAKE, S. C., M.B., Ch.B. Brist.	"Stanhope," Bideford, N. Devon.
*WARD, H. W.	Chipping Manor, Wotton-under-Edge.
*WARREN, R., M.A., M.D. Oxon.	Heathgates, Weston-super-Mare.
*WATSON-WILLIAMS, E., *M.C.*, B.A., M.B. Cantab., Ch.M. Brist.	65 Pembroke Road, Clifton, Bristol 8.
WATTS, J. B. V.	Frantzina's Rust, Barberton, Transvaal, S. Africa.
WEDDELL, C. W.	Boydville, 46 Miller Street, West Melbourne, Australia.
*WEEKS, A., L.M.S.S.A.	39 Badminton Road, Downend.
*WHITE, R. F., M.B., Ch.B.	"Wellclose," High Street, Nailsea.
*WIGODER, SYLVIA, M.A., M.D., Ph.D.	
*WILBOND, R. G.	76 Chesterfield Road, St. Andrew's Pk., Bristol.
*WILLIAMS, I., M.B., Ch.B. Brist.	"Ardrem," Hill View, Henleaze, Bristol.
*WILLIAMS, S. R., M.B. Lond.	Buckfastleigh, Devon.
*WILLOUGHBY, J., M.B. Ch.B.	"Kingsholme," Clevedon Road. Nailsea.
*WOOD, D.	105 Pembroke Road, Clifton, Bristol 8.
*WOOD, URSULA, M.B., Ch.B.	Henley Lodge, Yatton, Som.
*WOOD, W. V., *M.C.*, B.A. Cantab.	Henley Lodge, Yatton, Som.
*WOODMAN, DOROTHY, M.D. Lond.	10 Tyndall's Park Road, Clifton, Bristol 8.
*WOOLLEY, W., M.B., Ch.B. Brist.	239 Cranbrook Road, Redland.
*WRIGHT, A. J. M., M.B., B.S. Lond.	Harley Cottage, Clifton Park, Clifton, Bristol 8.
*WRIGHT, WINIFRED M., M.B., B.S. Lond. ..	Merrymead, Shepton Mallet, Som.
*ZEALAND, L., M.D. Man.	Brecon Lodge, Westbury-on-Trym, Bristol.

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